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1902

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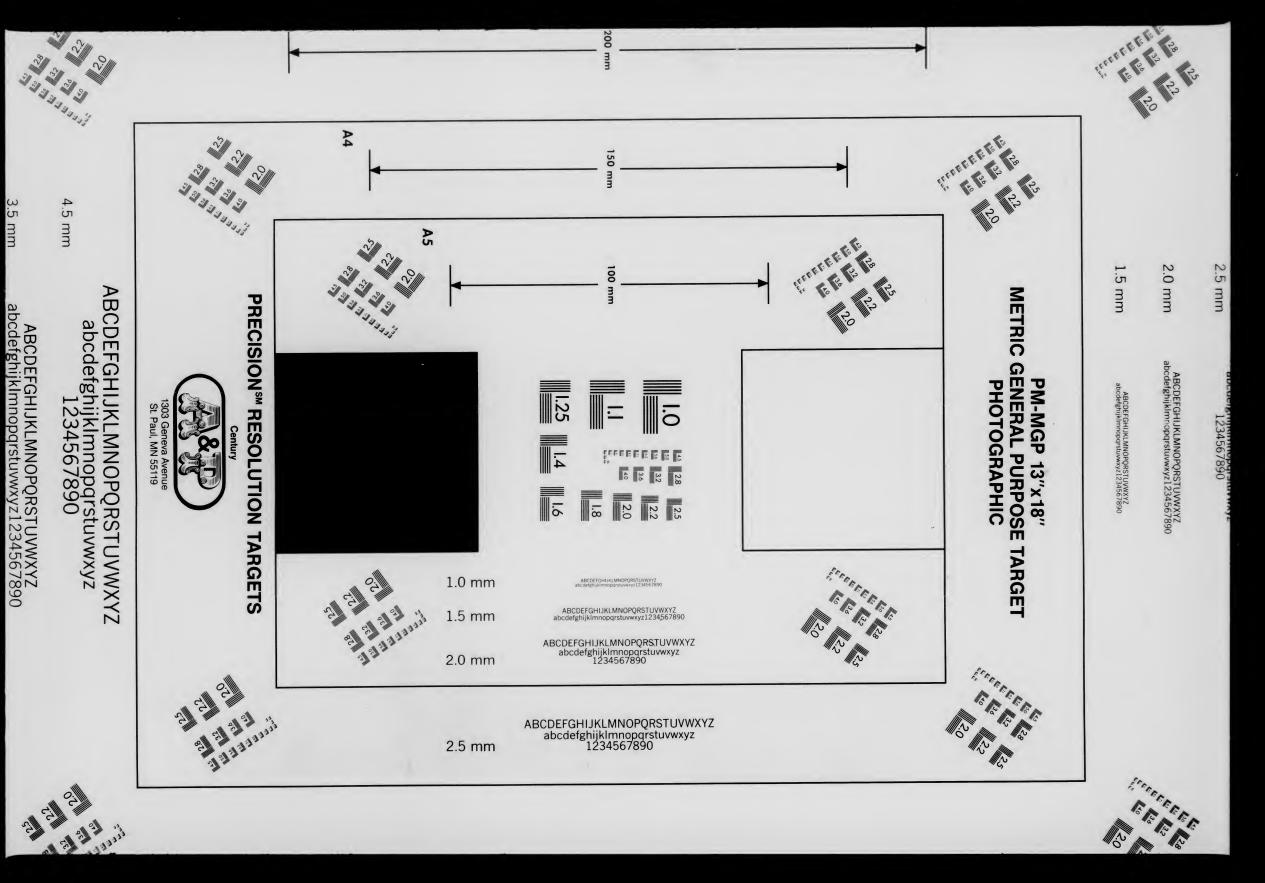
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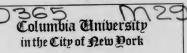
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### Business



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# STARTING A PRINTING-OFFICE

BEING A HAND-BOOK FOR THOSE ABOUT TO
ESTABLISH THEMSELVES IN THE PRINTING BUSINESS AND FOR THOSE
ALREADY ESTABLISHED



BY

ROBERT C. MALLETTE

AND

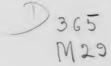
WILLIAM H. JACKSON, LL.B.



WATERBURY, CONNECTICUT
PUBLISHED BY THE JACKSON QUICK PRINTING COMPANY
M C M I I

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#### OUR REASONS

The crying need of the day is for men who are practical-men who can do things themselves and also so direct the efforts of other men that the latter's toil shall bring increase of comfort to them as well as greater emolument and honor and fame to those who guide them. That comparatively so few printers are found in the ranks of these captains of industry is more due, we believe, to the fact of lack of early proper business training and later proper business experience than to any other cause. To better this regrettable condition of affairs, and to aid worthy printers to so assist themselves as to upbuild and strengthen the fabric of their business, has been our sole object in writing these pages. Nothing here is theoretical -it is all in the fullest sense practical. The book is but the history of our own office. Every sentence is built upon an actual occurrence in the routine work of the men who prove in their daily labor the correctness of the system which we have perfected and whose merits are herein set forth.

It may not be amiss to add that the authors have each had experience for a score of years and more at case and press and desk, and that Mr. Mallette has been a contributor to printers' trade journals and other publications, while Mr. Jackson has supplemented his practical training by a legal course at Yale University.

Press of The Jackson Quick Print Waterbury, Connecticut

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# STARTING A PRINTING-OFFICE

#### CHAPTER I

THE PRINTER AS A BUSINESS MAN

RUFF old Dr. Johnson it may well have been T who answered a question as to when a child's education should begin by saying, "Forty years before its birth, madam!" Almost equally early should begin the education and training of the man who is to found and conduct a printing office-who is to do "Printing for Profit" and become something more than a beginner in the printing business. Not that master printers of tomorrow are likely to be able to trace to pre-natal influences the success which it is assumed will be theirs; but from the moment of his entry into a printing-office as apprentice a boy should be given such education and training as will not only make of him a competent and skillful journeyman,-a master of the trade as a trade,-but as complementary to this will give him also that knowledge of commercial forms and usages, that grasp of methods of business, which alone can make of him one competent and skillful as a manager,—a master of the trade as a business.

This can be done only by the co-operation of the youth with those who instruct him in the technical mysteries of the trade, and his equally ready and sincere co-operation

with those who would teach him the deeper, more vital principles of the business. And this co-operation must continue without cessation, else will both instructor and instructed fail of best results, or results even passable.

Not one printing-house proprietor in a thousand but thinks he does his whole duty to the apprentice by teaching him the trade in the three years the youth is supposed to be "learning." Very many of these proprietors are earnest, sincere, competent, both as printers and instructors. They give the best they have to the "kids," and a feeling of comity and hearty good-fellowship grows up between them, often unbroken by years and distance. But—that is all. To suggest that the apprentice should be given in addition an idea of cost and value of printing, an insight into methods of carrying on business, an adequate conception of the pitfalls that line the path and the means experience has shown most desirable for their avoidance-to suggest this would be to invite "the loud laugh of scorn." Yet negligence or refusal to give such instruction is directly responsible for a vast amount of the pricecutting, the heart-burning, the profit-losing, the sheriffcoming, that mar the fair field of printing today. Educate apprentice and journeyman—give each as thorough knowledge of procedure at the desk as at the case or the press -and two things, greatly to be desired, will soon come to pass: Fewer unprepared workmen will yield to the desire to "start a little office," and those who do branch out for themselves will be so much better prepared that both they and their former employers will be in position to do finer work at more consistent and satisfactory prices and at greater profits.

The eager apprentice with a desire for an office of his

own; the skillful journeyman who longs for freedom from foremen and for opportunity to work as he likes with tools that are delightful because his own; the competent foreman who feels that "his Utica is pent" and his powers and abilities long enough given to others,—to these, all, are the following pages addressed. It is assumed that each is a faithful and conscientious workman and that he has technical ability sufficient to enable him to take and hold positions requiring skill and judgment and the ability to manage men.

And not these only do we address, but as well the multitude of printers, some no longer young, who struggle to carry on the plants they have purchased or established. Numbers of them work far harder than do any of their employees, and for what is actually a smaller wage. Financial returns are unsatisfactory, the outlook is discouraging, the future as well as the present is mortgaged, and little else remains than pride which will not acknowledge defeat. Frequently this has come about through lack of proper training and of a suitable system whereby the business might be conducted. For these, whether the office be large or small, the plan we are describing is most admirably adapted.

In this connection let us quote from an article by Mr. Charles Gillett in the National Printer-Journalist:

The printer begins, in most instances, as apprentice in a well-established and successfully-conducted shop. He devotes the best years of his youth to learning the trade—not the business—and it is small wonder that when he accumulates enough money to commence his business career he finds himself minus business ability. The supply man encourages him to go in for himself, pointing out this and that successful firm that began with small capital; and with his star of hope high in the heavens he launches out into the sea of business activity, only to find after a few weeks that "prices

have all gone to blazes." His first "basis" fails to catch orders. Perhaps his first cut helps a little, but in most cases if he gets his share of floating business it is only after his "basis" has been mutilated beyond recognition. Meantime he is beginning to heartily despise his competitors. His former employer gives him a quiet or a violent "roast," according to the character of the man. His former associates, if they happen to be his present competitors, treat him like a horse-thief. He begins to "bristle up" and before long he is engaged in the merry occupation of cutting and slashing with the best of them. And the remedy for this condition? Association! Let the most aggressive competitors be thrown together in the ranks of an association, where a friendly spirit prevails; where ways and means of improving conditions are discussed; where "old times" are talked over; and in fact where "friendship reigns"-and the keen edge of competition will soon wear away. It may take a long time to bring about a complete reform, and stronger and more comprehensive organizations than we now have may be necessary before the price-cutting habit and its attendant evils will be eliminated, but my personal experience testifies that association alone accomplishes a great deal of good, and until a better plan is offered "let the good work go on."

And for this association, this commingling of ideas, this community of interests, there exists even greater need before the printer shall have launched out upon the unknown deep of business trials and experiences than later.

#### CHAPTER II

#### SELECTION AND LOCATION OF PLANT

MPORTANT as this is, one thing yet more important should first be decided,—the amount of money to be invested. This is of pressing moment; it demands far more thought than is ever given it by a majority of printers, or, indeed, tradesmen in general. More than thirty per cent. (practically one-third) of all business failures in the United States are caused directly by lack of capital; insufficient at starting, insufficient to carry the business until money could be collected for work done, insufficient to satisfy the sheriff when he called. Better, far better, a small office paid for and a surplus in bank than a larger office garnished with mortgages and decorated with notes, also a continuous ambi-dextrous performance to meet the payroll on the one hand and the interest and principal on "paper" on the other.

It has been our observation that a printer who desires to engage in business for himself should have not less than \$2000 in cash, and \$3000 is better. With this he can procure an outfit well equipped for the economical production of all the general run of commercial and society work, fill his stock room with paper, and still have a balance at his banker's to enable him to meet bills promptly and take advantage of all cash discounts. It will not buy a big cylinder nor a Mergenthaler. The latter is useless in such an office, the former will hardly pay unless kept

constantly busy, and this is not to be expected. But whatever sum is to be invested, not more than seventy-five or eighty per cent. should be spent at the outset, the remainder being banked as working capital. He who has money has all the credit in the world; he who has none, or has it all tied up in his business, has no credit, or very little, yet he may be quite as deserving as the other. Unless the ambitious journeyman can command at least \$2000, it were well for him to curb his ambition until such time as that sum is at his disposal.

Having, then, sufficient capital, the question is that of location. If a man be a life-long resident of a prosperous city, his personal popularity will be so valuable an asset that, other things being equal, he can do far better there than where he is a stranger. Confidence is a plant of slowest growth, and the confidence reposed in him by those who may become customers and patrons is an exceedingly strong factor in the success of any printer. Yet if larger opportunities present themselves in fields near or remote, it is but prudent to embrace them. It is not wise to buy or start an office in a town that is retrograding, or even at standstill, nor in a place so small that the amount of work is scanty and irregular. It has become an axiom that one must go to a busy printer to get work done quickly; so should the printer locate in a busy place, where, possibly, there are many busy printers, to obtain more quickly the volume of business necessary to keep his plant running at capacity and his bank account above low-water mark.

Circumstances of each case alone can determine the relative merits of purchasing a plant or of starting one quite new. Each has commendable features. In the one, customers and class of trade already won, work in process,

material ready for instant use; in the other, the beauty and cleanliness and attractiveness of new machinery and equipments. Frequently it is well to acquire an interest in an established plant, devoting part of the capital to the purchase of such new material as the office most needs. This is really, in many cases, the plan most advantageous for all parties, and it is commended alike to those about to engage in business and those already established whose ventures would be bettered by the infusion of new blood and brains and capital.

The city chosen, the locality demands attention. This should be central and accessible; on the main business street or not more than a block away, and as near street level as possible. Sometimes a small store can be secured for office and stationery, the work-rooms being relegated to a portion of the building not so expensive yet within instant reach by speaking-tube, copy-chute, and stairway or elevator. When this cannot be had, get large and welllighted rooms on the second floor, or even the third if in good quarters, at the head of the staircase or adjoining the elevator shaft. Best results for light and ventilation are usually obtained in rooms facing south. The arrangement of the different departments requires careful thought and must depend largely upon conditions confronting each individual; but in a general way the matter will be discussed in the chapters devoted to the various rooms.

Remember that greatest success is achieved by him who knows one thing thoroughly and does it well. Concentrate; avoid diffuseness; fix thoughts on one high goal and press strongly on till that be won. Specialize the plant; learn what can be done better there than elsewhere. Devote tireless energy to the perfection of this specialty.

Tell the people about it until they become filled with the belief that at this one printery alone can they obtain what is best, or indeed anything that is satisfactory, in this particular line. It is not meant that no work should be taken save of this especial class, nor that every job shall conform to arbitrary rules. Rather, as will be shown later, each job should be treated alone, as a distinct entity. But there should be courage to decline work for which the plant is not properly equipped, or work that requires special facilities not enjoyed by the average office. Customers bringing such orders should be directed to an office capable of producing the work economically, it being explained that the facilities at hand do not allow it to be done at a price that is both remunerative to the printer and satisfactory to the customer. Let it be understood, however, that a continuance is expected of that work for which the plant is best fitted.

Keep well in mind this matter of specialization, whether for a new plant or old, and make material and machinery conform to the uses to which they will be put. Do not hesitate to discard useless or obsolete tools and replace them with modern devices, labor-saving and adapted to the peculiar needs of the plant under consideration.

#### CHAPTER III

#### THE BUSINESS OFFICE

TAKE your friends feel that you are glad to see them. Have the office large and light and cheerful; see that it is home-like to those who come frequently, business-like to those who enter for the first time. On the walls hang a few pictures, or framed samples of printing of more than ordinary merit, or press notices concerning the plant and its productions. The floor should be oiled or stained; a rug or two may be laid down; walls and ceiling papered in pleasing shades, softening the sunlight without seeming garish or too ornate; woodwork of ash or golden oak, chandeliers or electric fixtures and all brasswork polished; windows and ground-glass scrupulously clean. These seem small details, but they are such as mark the division between enterprise and carelessness, cleanliness and slovenliness, often success and failure. A lasting impression of the concern, its capabilities, its energy and enterprise, gained by a stranger, is often obtained within those few seconds that his eyes rove over the business office and its adjuncts. So difficult is it to eradicate or even modify an unfavorable opinion thus formed that every effort should be made to create and maintain a feeling of confidence—a sense of satisfaction—in the minds of all who enter the business office of a printery.

But while greetings hearty and cordial are given friend and stranger, neither should be allowed free access to the

establishment as a whole. It is well to have a low partition and counter across the end of the office, allowing of course ample space both before and behind the counter for transaction of business with the transient and the hasty visitor. This partition may be of either stair-baluster construction or of brass or iron grill-work, about three feet high and having a gate closed and locked by automatic spring. On the counter put pads, pencils, specimens of printing, and the like, and a bell for use should no one be in the room when customers call. Here a great number of small orders may be taken.

On occasion, however, there enters the lady who wishes a chic program, or the manufacturer who desires estimates on his new catalogue, or the city official who finds that he must have some blanks without delay. These and many others should have the "open sesame;" they should be admitted behind the gate, seated at a long, baize-covered table, and provided with every facility for the prompt and pleasant transaction of their business. Also, there might be copies of trade papers and a handful of unusually fine specimens of the best work the office can do,—all this in the line of inspiration. Close by should be the desk of the manager, containing information on all conceivable subjects having to do with printing, properly filed and fully indexed, so that any question which may arise can be answered without hesitation.

And for this no other system of indexing or filing can equal the card index. It may be applied to catalogues, price-lists, samples of printing and engraving, engagements, correspondence, invoices, mail-lists, lists of prospective or desirable customers,—in brief, to almost every detail of any business, whether small or great. By its use

reference may be had instantly to any feature of any detail of the business, recent or remote, in any department. Consider for an instant the saving thus effected! Only a short while required to prepare the cards, only a moment to correct them to date. No hunting aimlessly for a catalogue mislaid or destroyed—it is found instantly; no frantic searching for copy and proof of a job on which customer claims allowance because of error—the index shows just where to find both and may prove the error to have been the customer's, hence no allowance; no dashing through ledger and journal to learn when Smith had the next-to-last lot of special billheads—the date and job number are at one's finger-tips; no wondering when Jones promised to settle his past-due account—the card will tell. In time, in comfort and convenience, in accuracy, in the satisfaction that flows from doing business in businesslike ways, he who uses the card index is saving daily the total cost of its installation and maintenance.

See that desk and table and counter are always clean and neatly arranged, and that the manager's desk is a model of order and system. Loose papers, never allowed to litter desk or floor, are tossed into capacious baskets. All correspondence should be filed as soon as received, unless an answer is necessary, when the letter is placed on a pin until all mail is opened, then answered, marked, and filed. Invoices, when checked with a list of goods received, are filed, and statements compared with invoices before o.k. is affixed. Copies must be kept of all letters written, and this may be done without loss of time by means of an indexed pen-carbon book which obviates use of a copying-press. Even if a typewriter be used, a press is needless, carbon copies being made when writing and

placed in the file with other copies and letters relating to the same subject or firm. But while the advantages of a typewriter are numerous and obvious, such an investment is rather in the nature of a luxury; it is not a necessity in an establishment of this scope.

Top of safe and desk should be reserved for the jobticket boxes described in a later chapter, for files of recent letters, and the like, but never allowed to accumulate odds and ends of any kind. For books of reference, trade journals, and similar volumes, a revolving bookcase should be provided. Here and in every part of the shop there should be strict insistence that every article must be at once returned to its proper place by the one who uses it.

#### CHAPTER IV

#### THE COMPOSING-ROOM

UY type in series of large fonts; keep type in modern dustproof cabinets; so arrange cabinets that compositors pass from cabinet to cabinet and from cabinet to stone or rack in shortest time and with least effort possible. If equipping an office, buy only Wisconsin or Polhemus closed cabinets; if acquiring one, reduce to kindling-wood all news frames and job stands, those consumers of floor space and increasers of rent, and replace them with cabinets, even when stands may be practically as good as new. This way profit lies, though courage be required to follow it. Not more than twenty-four cases are in a double job stand, open on all six sides to free circulation of dust and bacteria. A modern cabinet, wood runs, holds forty cases free from dust and germs; the use of steel runs increases its capacity to fifty cases without increasing floor space, which is the same as that required by the open stand. Four cabinets hold almost as much type as nine stands, take less than half as much floor space, and save at least twenty-five per cent. of the time of compositors simply because of their compactness and accessibility.

On the flat tops of these cabinets screw tilting brackets for body-type cases, utilizing as a rest for a double galley the wooden support between the lower sections of the brackets. An empty galley should be kept here ready for

use; the straight-matter man need not stir from his case until galley be filled or take finished. Then, instead of laying the galley on a case overflowing with type or bracing it up on the stone, slide it into a rack. This may be fastened to the wall, or even the end of a cabinet if not in the way of workmen; but it is better to buy Polhemus cabinets and specify galley racks in one or more. Here galleys of live type may be stored, free from dust or danger, labelled to prevent error or confusion. In matter for a regular publication, use at head of each galley a linotype slug with name of paper and number of galley—thus:

PAPYRUS -GALLEY ONE

For ordinary use, where matter stands only until proofs can be returned and corrected, simple slugs like this

GALLEY ONE

may be used. Their cost is almost nothing, their utility great as preventives of error and savers of time.

It should be as much a part of the routine work of the office to keep abreast of distribution as to keep up with composition. Our straight-matter men make it a point to distribute a certain amount of type daily—usually late, so the case will be dry and inviting next morning. Not less systematic should be the distribution of job type. Indeed, stronger reasons may be cited in the latter instance, for seldom is it that body cases are depleted to the extent that seems normal with most of the desirable faces in an average office. It would seem hardly necessary, were it not so proven by scores of instances, to say that there must be an abundance of spaces and quads and leads and slugs (slugs are, in their way, as important as leads, and far cheaper than quads), and that additions should be made whenever demanded by increasing business or the exigen-

cies of work requiring many sorts or leads. Often enough time is wasted piecing leads to turn into loss the profit that should have been derived, and but for this wasteful economy would have resulted. Buy all the quads that seem needed, and then add thirty per cent. to the total. Keep them in the sort draws that may be obtained in one of the Polhemus cabinets in lieu of galley racks. Keep leads in Boston or similar racks, the overflow in blank cases subdivided to suit. Keep labor-saving brass in rule cases (we prefer the quarter-cases enclosed in blank case) and these, with metal furniture case, rest on the galley top of double cabinets. It is poor economy to turn single or dotted rule; buy "flat" rule of three or four thicknesses and cut as required, but allow only the foreman to cut or miter leads or rule, and insist that everything be measured by picas and nonpareils. A few pounds of one-point leads are necessary, and a box of brass and copper thin spaces will repay its slight cost many times.

Arrange cases in cabinets, and cabinets in order, so that type most used is most accessible. Series should be together; series correlated should also be closely placed. But type-styles change as frequently and often as mysteriously as fashions of women's dress, and purchases of new faces become necessary. A series was never produced that lacked merit; but the wise printer will not buy new type indiscriminately merely because it may happen to be new, nor because specimen sheets from the founder are noble examples of typographic excellence and the design is in striking and attractive display, nor because the salesman tells him it is just what he ought to have, nor because he chances to be in complacent mood—in buying humor—and the face strikes his fancy. Rather, let him consider

carefully the merits and also the demerits of the new style and its adaptability to his own work. A style thoroughly desirable for a printer doing one class of work would be unsuited and almost useless to his neighbor, whose work demanded totally different treatment. Durability should also be considered. Fine lines, microscopic serifs, deep kerns, open or shaded letters, are to be avoided in choosing type for a general utility office, such as must be that of the great majority of small printers. Fortunately, these styles are now not much in vogue. Nor should text letters be indulged in freely. A series of such as the Priory or Caslon Text, with Caslon oldstyle and its italic, will be very useful for the better grades of commercial work, and will answer all requirements. Having these and Romans, lining and condensed and extended Gothics, the DeVinnes or Jensons or similar faces, with Blair, Engravers' Roman, script, and possibly a few others, for stationery headings, nearly all work can be handled rapidly and easily. Oldstyle Antique is a most useful letter in conjunction with oldstyle Romans; when modern Romans are preferred, something in the nature of an Ionic is best, especially for side-headings and for full-face display. And yet, as has been said, little more than most general outlines can be given, because that which fully suits one printer is least adapted to his neighbor's use.

As one series of type fades slowly from prominence and is replaced by styles more modern or more renascent, rearrange the cases so that those containing newer or more popular type shall have place of honor and of easy reach. If a year and more shall pass without once using the type thus sent to the rear, its usefulness is past; it cumbereth the ground; and the type-founders' offer of seven cents

a pound for old metal applies perfectly to that particular series.

Allow no type to lie about on the stone. Have the stone-hand lock all jobs as soon as the o.k. is received, and set chase in a rack. From this rack the pressman takes it when ready for the run. The run completed, it should be at once unlocked, placed on a galley and washed thoroughly with lye. Then to the dead-board, unless indeed it be a "standing job," and of these there should be as few as possible. Should a particular form be re-ordered so frequently as to make it advisable to hold the type, it would be far better to have one or more electros. The cost is small, the saving so constant that the electro soon pays for itself and returns a profit even though necessary to send the form out of town to be electrotyped.

For a dead-board there can be nothing better than the letter-boards obtained with modern imposing-stones. We use a Hamilton stone 40 x 80 inches, having forty-eight boards 191/2 x 221/2 inches; three sections, twenty-four boards, on each side. These hold a vast amount of tied type—at least six or seven times as much as can be laid on the stone itself; and the type may be either live or dead. So much space, indeed, is given by such a stone that frequently the boards on one side are used as drying racks for sheets just off the press, thus further economizing floor space. The boards may be withdrawn at will; but where type is placed on them it is well to affix as a stop a long wire nail to avoid any possibility of drawing the board so far as to pi its contents. If desired, boards may be removed and a drawer substituted to hold quoins (which must be kept in a box, not scattered about), keys, mallet and planers; no furniture—that belongs in the fur-

niture-case; no pi-that must be thrown in without delay by whoever is responsible for it. Nor must pi ever be found on tops of cabinets, or windowsills, or quad-boxes, or anywhere.

Allow no papers to be scattered—provide waste-baskets even in the composing-room; have windows washed frequently, floor oiled, side-walls protected by sheets of the heaviest manilla, shades and awnings at the windows. Above all, provide cuspidors—two to each tobacco-user, if need be-and insist that they be used, and that they he cleaned.

Pile no cases on the floor or in the corner. Pay a few dollars for a roll-front cabinet to hold upper and lower cases, or a Porter extension-front cabinet for job cases, and keep them there, clean, dustless, properly arranged, when not in use. Of course every case is labelled. The discerning printer will also lay all script and text fonts in two-third cases, fonts with a large proportion of capitals in California cases, and fonts of capitals only in triple cases. Nor will he ever allow two or more fonts to be laid in the same boxes. Furthermore, he will have space-andquad cases in each alley, and keep them filled. Cuts and electros, the property of the office or merely loaned for a specific purpose, are not permitted to lie wherever stonehand or distributor chances to drop them. The Hamilton Company makes compact and very convenient cabinets, containing twenty to sixty draws the size of a type-case, with adjustable slotted partitions so that cuts of different sizes may be stored without loss of space. Some of these have metal numbers on the cases and divisions are indicated by letter and number, so that a cut placed anywhere within the cabinet and properly entered in the index-book which accompanies, may be found instantly. This cabinet is as essential and almost as constantly used as a composing-stick. The latter, however, should be kept in a rack, and composing-rules in a leather case. Have plenty of each, the rules especially.

Whenever circumstances permit, send out only pressproofs. This cannot always be done, frequently because the margin of profit is not sufficient. If a stone-proof be necessary, use French folio for a clear, clean, pleasing print. Indicate by pencil-marks the margin of the finished job, or better yet paste the proof in position upon a sample of the stock selected. In this way a fairly accurate idea of the appearance of the job may be gained even by one unaccustomed to printing. Not only will this attention to detail please the customer, it is likely also to prevent changes in proof; and in the experience of every printer are frequent instances of loss of time and profit from this cause alone. A substantial proof-press will pay for itself very quickly.

#### CHAPTER V

#### THE PRESS-ROOM

HAT has been said elsewhere concerning cleanliness applies with equal or greater force to the press-room. Nowhere else will thoroughness in cleaning and caring for machinery bring such handsome returns. This is true as regards ease and comfort of operation, amount and quality of finished product, and life and capacity of machinery itself. Yet this is looked upon by a great number of printers as of small moment—something scarcely worth heeding. Fatal mistake!

Every printing-house proprietor should lay sheets of zinc under all machinery, allowing them to project beyond the machines to catch oil, drippings, waste and refuse of every description. See that this zinc, as well as the floor, is swept at least once daily; see that baskets provided for spoiled sheets and scraps of paper are emptied daily; see that each piece of machinery is given a thorough wiping and all bright parts polished not less than once each week. For this there is no better plan than to shut down power an hour or two before quitting time each Saturday, the entire force turning in to clean up. Not a mere perfunctory wipe with a bit of oily waste, but a thorough and systematic cleaning; benzine, oil, hot lye if necessary, with abundance of clean waste and "elbow grease." Occasionally zinc and imposing-stone should be washed with lye; floors scrubbed, and oiled; woodwork washed; dust frequently blown from cases not within dustproof cabinets—news cases and those containing quotations or rule or spaces.

While composition and presswork are likely to be done in one room in such a printshop, this room should be separated from the business office, and visitors to the latter allowed to penetrate no further. A low swinging gate of wood or metal will answer the purpose admirably if the door between the rooms has been removed.

Opinions differ so strongly as to merits of the several styles of platen presses—those of Golding, Universal, and Gordon types—that each man must choose for himself, remembering always that personal preference for any one press should not be allowed to blind one's judgment to the excellences of another machine if that be better fitted for the economical production of the class of work he is to do. A full fountain, a counter, and an automatic belt-shipper and brake are most essential parts of each press, and should be used without ceasing. Time taken to wash the fountain for colored ink will be more than gained by ease of running and consequent uniformity of color. Furthermore, the counter must be set for each run and the exact number printed marked by the feeder on his time-ticket, whence it is transferred to the job-ticket. Here is a double safeguard against claims for shortage: The feeder, knowing the extent of the run, notifies the foreman should the number of sheets supplied him fall short, and it is at once made up; when the customer asks rebate because of lack of count, the ticket is produced to show that there were say 3013, instead of the 2850 that the customer said he had received.

Procure brushes soft but fairly strong for washing with lye, and renew them as often as the bristles become much

worn. Ours are made to order at a local factory, and we find that while they are somewhat expensive they wear exceedingly well and do not injure the type. Buy or build a cabinet for ink and rollers. On the upper shelves keep the less-used colors, below those the standard reds and greens and blues and browns, and beneath these in turn the cans of varied blacks. Insist that cans be covered when not in actual use; that they be kept in the closet when not required for the presses; that each night every can must be closed and returned to its proper place. In the lower section of the cabinet are brackets for extra sets of rollers, of which there should be one or two always. Have full supply of chases, of quoins, of gauge-pins, of tympan sheets cut to proper size. Follow the advice of Mr. F. W. Thomas of Toledo and cease to buy a little ink from each salesman who comes, but decide upon one of the dozen and more prominent and reliable inkmakers and give him all your orders. Acquaint him with the conditions of your press-room and the nature of your trade, and he will give you inks suited to your work and always uniform. From ten to thirty per cent. of the costlier ink is wasted in a small office. A large proportion of this loss may be prevented if colored inks and high-priced blacks are bought in pound tins, standard blacks in five-pound tins.

In the press-room also is likely to be found the papercutter. This should be so placed that it will be convenient to presses and stock, with low, strong tables to hold full sheets and cut, at the right and in the rear of the cutter. Beneath the rear table should be a box with a projecting inclined front to catch easily the trim and waste stock, and this paper should be disposed of every week or so sold, or given away if necessary. See that the cutter-knife is ground once in three or four weeks, and include cutter and all small machines in the weekly clean-up. Place baskets for spoiled sheets near the presses; they will be used.

Encourage pressmen and feeders to attain and maintain accuracy in feeding at fairly high speed; but lay much stress on the fallacy of speeding a press at 2000 an hour and then tripping impression almost constantly. Watch an average feeder on an average job. He will miss from fifteen to thirty impressions in each hundred—say a fair average is twenty. That will net only 1600 impressions an hour, and go far to explain why forty minutes are taken for feeding 1000 envelopes on a press running 2250 an hour. Better results with less wear and tear are obtained when the press is run more slowly and practically every impression is counted—in this instance perhaps 1750. An ideal speed is one that will produce the greatest amount of perfect sheets with least use of throw-off in a given number of impressions.

#### CHAPTER VI

#### LIGHT, POWER AND HEAT

T being scarcely possible to obtain too much light in a printshop, an abundance of windows is of prime importance in both composing-room and press-room. Especially true is this if both departments are within one four-walls. It is an axiom older than Gutenberg—old as the beginnings of calligraphy itself—that writer or printer should so place himself and his tools that light from the window will fall athwart his left shoulder upon the paper. Not always is this possible; but it is very desirable that compositors should be so situated, and it is almost imperative that the straight-matter men be so placed; for jobbing the necessity is not so great. Almost equally strong is the reason for so setting a press that the feeder's left side is toward the light, his view of the platen and guides unobstructed by the shadow of his right hand or the sheet being fed. To obtain all these is not always easy, but by careful study a way can generally be found that leads smoothly over difficulties which once seemed impassable. Herewith is a diagram showing the arrangement of rooms in our office, recently equipped with new material and located in a building not especially adapted for the purpose.

It will be seen that practically all the workmen so stand that at ordinary work they obtain light at the desired angle, not only on cases and presses but also on the stone, where the lock-up faces the window, and the cutter, where the

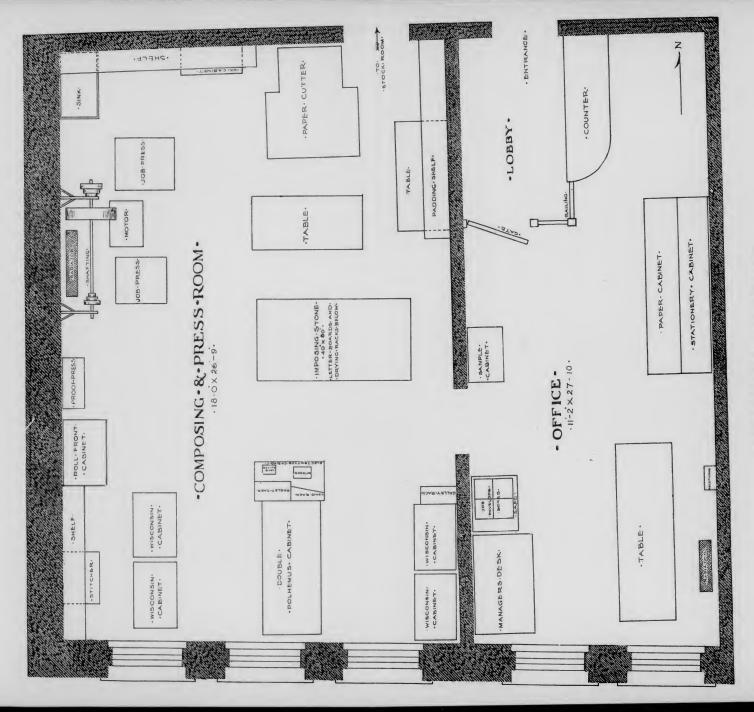


DIAGRAM OF A \$3200 OFFICE

operator receives light from transoms as well as from the windows behind him. In this instance the windows are broad and high, but not more so than are usual in buildings erected for commercial uses, as this was. Roller shades are hung at each to soften the fierceness of the afternoon sun, and canvas awnings aid in creating artificial coolness. The added comfort of employees and increased efficiency thus obtained will pay direct and handsome dividends on the slight cost of these improvements, which still are sadly lacking in too many shops. It goes without saying that the business office is similarly protected. Even though it may be found necessary to give a small additional monthly rental to obtain well-lighted rooms, it invariably pays to do so,—not only in increased ease and rapidity with which men work, but as well in saving in use of artificial lights.

Use none but electric lights if it be possible to obtain the service. Electricity is nominally but slightly more costly than gas, and actually cheaper when consideration is given its brightness, its cleanliness, its readiness, its safety. It is by far the most satisfactory of all illuminants. But do not attempt to economize by using fewer lights than occasion demands. In the business office, have one at the entrance over the counter described in Chapter III; one over the desk; one over the long table. Green globeshades add greatly to the comfort of all who read or write beneath these lamps. For the work-room, see that one bulb is suspended over each pair of cases; over the stone; over each press; over the cutter; over the stitcher. That should be sufficient for a room planned like the diagram, and it will frequently happen that not more than two-thirds of these are burning, even when all the men are busy. A long cord should be attached to each globe.

If for any reason electricity cannot be obtained, use gas. Have plenty of burners—at least as many burners are needed as electric bulbs—and enclose each jet with a globe or use a Welsbach burner. The flame will be steadier and less trying to the eyes.

All that has been said in favor of electricity as illuminant is doubly true as to its use for power. None other is so ready, so clean, so cheap, so safe, so universally satisfactory. It is instantly usable at any hour of day or night, and with the measured service which is the only one given by most companies now, there is no charge for power save when machinery is running. Individual motors are excellent for large presses—cylinders should always be driven thus; and a half-medium may sometimes be run more advantageously by its own motor. A shop so small as to afford but one press should invariably obtain its power in that way. But smaller presses, especially where not more than three are run, may be more economically operated by shafting and a central motor, care being taken to make shafts and belts as direct and as few in number as possible. Should a plant be located where electric power could not be obtained, a fairly acceptable substitute is a water motor, and with adequate pressure a small motor will answer all requirements.

Another detail to which little attention is given is that of heat. Too often does it happen that when a printshop is opened at seven or eight o'clock the temperature of the work-rooms is barely above the freezing-point, and both machinery and rollers literally as cold as ice. Even though a rousing fire be built at once, much time must elapse before the atmosphere becomes so warmed that men and machines can do their work rightly; and frequently the

rollers will become so chilled that it is impossible to make them take ink properly until nearly noon. Here are hours and hours for which the proprietor pays wages and current expenses, but from which no revenue is had. What wonder that it is indeed "the winter of our discontent" to so many printers!

Now, if rental paid for rooms is to include heat, insist that the janitor keep sufficient steam pressure to maintain fair warmth in the rooms all night, and that full pressure be given at least an hour before time for beginning work, so that all things may be ready for use as soon as the men come in. If heat must be furnished by the office itself, see that the fires are kept up. It is well to have one of the boys come in to look at the fire late in the evening, and again an hour or so before the office opens in the morning. He should of course be paid for this additional labor, which will mean constant profits on the time of all the other workmen and thereby become an exceedingly satisfactory part of the wage account.

#### CHAPTER VII

#### STOCK-ROOM AND BINDERY

HIS does not mean that an additional room must be obtained for storage of stock (although that is an excellent plan if at all feasible), nor that a complete bindery equipment need be installed. Rather, that the disposition of stock is a matter of sufficient importance to deserve a chapter, and that many of the details of binding can be done in the shop at a cost less than the binder would charge, to say nothing of the saving of time and the certainty that work done under the eye of the proprietor by his own workmen will be done correctly.

The plant whose work-rooms have been shown in the diagram utilizes part of its business office for storing stock, using one of the newest stationery closets. This is handsomely finished in stained wood, and is built in tiers, the lower one having two sections of sliding shelves, each shelf capable of holding a ream of 28 x 42 book paper, or a package of cardboard and a ream of folio. The upper part has stationary shelves for ruled goods, cut cards, envelopes, and boxed goods in general. Sliding doors are provided for each tier, the upper ones of glass. Writings, special covers, bonds, cardboard and the better grades of book fill the lower section. Manillas, tag, print, cheap writings, book and covers, may be piled on shelves built alongside the cabinet, with curtained front to keep out dust. In this office they are kept in a room just off from

the press-room, of which the door only is shown on the diagram. Each quality of stock is by itself, shelves marked with name, dimensions and weight to prevent error when piling or selecting stock. If there be not sufficient room here for all the stock, such coarser grades as manilla and print, or possibly the plated papers, may be kept on low shelves in the press-room, under one of the tables beside the cutter. But it will not be necessary to carry so great a variety of stock as to require much space in addition to a cabinet. Good judgment in the choice of standard lines of cards and papers will reduce very materially the number of different grades, and while the stock is more easily kept up the product of the office will be more uniform and more excellent.

There should be one standard grade of wove writing, both flat in the common weights and sizes, and ruled, with envelopes; a standard medium-priced bond and a highgrade bond in white and colors, with envelopes; a good grade of cream laid folio is also advisable. These will meet every requirement of almost all stationery jobs, and a great proportion of general work. White and colored bristol, about 100-pound, and the best quality of 160-pound white, together with four-ply railroad in colors, should be carried, as well as coated blank for window-cards. In book papers, machine-finish, super-calendered, and coated will be necessary, also antique laid for a certain class of work; but not more than one or at most two weights and one size of each finish. The stock of manilla and tag and of white and colored print and plated papers must depend upon the requirements of each plant; small quantities of each will usually suffice. If any customers have work in which large amounts of special stock are used, an effort

should be made to keep that always on hand, to insure compliance with the request for immediate shipment that often accompanies such an order.

White and colored cards cut to the two or three sizes most in demand should be kept. Supply houses can cut them more cheaply than individuals can, and not only are they of standard size, thus simplifying the matter of composition, but they are always ready. They may be bought boxed for a few cents additional each thousand, and the customer will readily pay a slight increase in price to get them thus, or the boxes may be given with the printed cards as an inducement.

Care should be taken that stock does not become depleted, and to this end a memorandum should be made as soon as the supply of any grade is nearly exhausted. As each job is entered, the stock should be looked up. If the amount on hand should prove insufficient, a memorandum is entered in the stock-book and the order written in time to go forward on the evening mail. The book may be small, indexed, on whose ruled pages is entered full information regarding all stock regularly carried or specially procured, including size, weight, color, price, and selling houses. Notes of goods needed are made on leaves attached to the cover by a clip and removed when the order has been sent.

Within the province of the bindery come such details as padding, punching, perforating, and wire-stitching. Padding is now invariably done at the printery, and by purchase of a press-punch, of which there are several on the market, order-sheets, cards, and such work may be easily punched while being printed, at a merely nominal cost. Even if a separate run be necessary for part of the punch-

ing, it can still be done here cheaper and better than at a bindery. A perforator need not be bought unless much of this work is to be had; but a comparatively small number of orders for perforations will repay cost of machine. As for a stitcher, every office doing even a small amount of booklet or pamphlet printing should be equipped with an up-to-date wire machine. This also should be located in plenty of light and have ample table facilities for easy and expeditious handling of books loose and bound. In our office a moulding runs around the sides of the pressroom at a height of four feet. Upon this is fastened a shelf about a foot wide, strongly braced, and there padding is done.

Here let us say that it should be the duty of the boy to have in readiness a plentiful supply of proof-paper (French folio for display and print for full galleys) and tympan sheets, cut to requisite sizes and kept convenient to both provers and pressmen.

#### CHAPTER VIII

#### THE BOOK OF SAMPLES

THEN a prospective buyer of printing enters the office, his first request is usually for samples of a particular class of goods. And right here are beginnings of trouble for the printer. Many offices, perhaps most of the smaller ones, make no pretense of keeping a book of samples; and of those who do, it is rarer still to find one properly made or renewed. Generally the book falls so far short of what it ought to be as a settingforth of the possibilities of the plant—it is so patently the product of haste and heedlessness—that at the very outset a most unfavorable impression is gained by the possible purchaser. The common method of using a book in which are pasted a heterogeneous assortment of what the printer deems his best productions-his pieces de resistance-is bad; so bad as often to destroy prospects of a sale either present or future.

It is most unwise to select for samples only the best work produced, especially if that work be out of the ordinary or that which requires particular skill on the part of compositor or pressman. Should a sample prove pleasing to the buyer, he is quite likely to become imbued with the idea that this alone is what he wants. Almost invariably he loses sight of the fact that his particular piece of copy is unsuited to the design which has struck his fancy and its appearance in type will be quite different from that

which first caught his eye. It is therefore advisable to select for the sample-book only those specimens which are good work capable of fitting ordinary demands,—those jobs which require but ordinary skill and time to produce and which are of a style most likely to become standard or remain in vogue. Avoid "fads" or too ornate display.

Samples should be classified and placed in different books or in different sections of the same book. The best means of displaying samples is to put them in a good, strongly-bound scrap-book, not over 8 x 14 inches in size and containing less than two hundred pages. Bill-heads, letter-heads, note-heads, envelopes and other stationery of this class should be together. Catalogues, booklets, folders, and work of that nature should be collated; likewise all other matter of the same or related classes.

Take such samples of differing sizes and styles as have been selected from the bill-heads, for instance; arrange them neatly and paste them in by means of hinges. These hinges are favorites with postage-stamp collectors because they allow removal of stamps from album without injuring either. They may be made with bits of gummed paper an inch long and half an inch wide, doubled in the center, gum side out. One part sticks to the book, the other to the sample. Whenever samples become torn or soiled, or it is desired to change the style, fresh sheets may be substituted with utmost ease and the books kept clean and in touch with changing fashion.

After the book has been arranged, a schedule of prices should be formulated and kept at hand for instant reference. The importance of such a price-list cannot be overestimated—seldom is it realized. When a customer has to wait for the printer to "figger up," he is very apt to

conclude that it is his apparent ability or willingness to pay, rather than the worth or probable cost of the printing, that is being estimated, so that the price named shall be commensurate with his purse. Hesitancy or a seeming lack of confidence in his own price on the part of the printer begets actual loss of confidence on the part of the customer. He feels that the printing business is at best nothing but a matter of guesswork, and proceeds to beat down the price, or, what is worse, decides to get estimates from every shop in town before placing his order.

The tabulated price-list evolved by Mr. David Ramaley of St. Paul, Minn., has been of invaluable assistance to us in connection with the sample-book. The figures are the result of years of experience and can be relied upon for accuracy. Prices are given on stock of varying grades in quantities of 100, 250, 500, 1000, and an additional rate by the 100 in lots of more than 1000. This list was embodied in the American Type Founders Company's catalogue of 1897, but Mr. Ramaley has since issued a revised edition in which the figures are based upon a ninehour work-day. The prices in this Ramaley scale should not be followed blindly. Each printer can readily adapt it to his own needs—but he cannot lower it and continue to do a profitable business. The scale will prove a valuable guide in case of doubt as to the worth of a piece of work when produced under the conditions set forth in another part of this book.

#### CHAPTER IX

#### ENTERING THE ORDER

CUPPOSE an order has been received from Hayes & Company for 1000 10-pound linen letter-heads, padded, on stock costing 14 cents a pound, to be delivered in three days. The first step is to enter the order on the job-ticket (Fig. 1). This is a form which contains all items likely to enter into the cost of the work, with proper blanks. In the first column is placed net cost of stock, and all items other than those for labor. The second column is for these same items with addition of the percentage for handling. The third column contains the figures for the labor actually expended upon the work. After the job-ticket has been made out it is placed in an ordinary letter-file, alphabetically arranged, where it remains until the job is completed.

A job-envelope (Fig. 2) is next filled out. This opens on the end, is 9 x 12 inches in size, made of 50-pound manilla. On it is a printed blank for such data and instructions as may be necessary for the guidance of those into whose hands it comes during the process of the work. The lower half is left blank for diagrams or instructions not appearing elsewhere. Copy and all loose matter accompanying, together with proofs, revises, and all else bearing upon the work, must be kept in the envelope. This is then put into the first compartment of the job-envelope boxes. There are two of these boxes, made of 3/8-inch ash

or pine, divided in the center by a partition of the same thickness, all neatly varnished. Inside measurements of the boxes are 181/2 inches long, 91/4 inches wide, and 71/2 inches deep (Fig. 3).

> 300 1000 10th. Linea Letter Heads preded 260 Thats 17x22-20 Taragordinen (0.14) 10 min or 95 Lough 30 mm 4 90 Butter Press Proof. 15 . . 60 Bur Job Finished Aug. 8
> File No. 501 Price Changed 4:25

FIG. I - THE JOB-TICKET

Each compartment is divided alphabetically by means of heavy strawboard cards 9 x 123/4 inches. Upon these

STARTING A PRINTING-OFFICE

File No. 501			aug	5 1902
For House To	<u>C - </u>			
1000 /	olt Linen	Levar The	d	
Provid Wanton Gang	6	Job Wanted	aug 8	-0
-				
stock 17.222 to Blue Be	are large	A S Pad. Bord .	8 toda	4,6.//
Benerits Set				

FIG. 2 --- THE JOB-ENVELOPE

is pasted (one on each card) a set of indexes similar to those of a ledger. Each section should have a complete set. The simplest way of making them is to cut from the top of each card a strip half an inch wide, its length varying to accord with the relative position of the letter for which

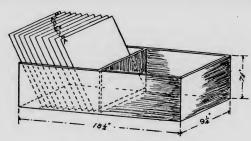
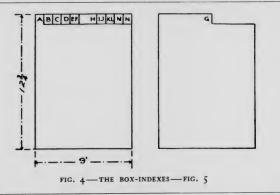


FIG. 3 — THE JOB-ENVELOPE BOX

the card is intended. Fig. 4 shows these indexes for one compartment as they lie ready to be placed upright in the box. Fig. 5 shows a single card with index in position.



The job-envelope, properly filled out and enclosing copy, is placed in the first compartment,—in this instance under the letter "H." These job-boxes are kept in the office, convenient to the composing-room; ours on the safe, close to the door. Daily, at morning and at noon, the foreman glances through the cards in this compartment, makes note of such jobs as require attention, and plans his work and his workmen in accordance therewith. Should there be received an order upon which work must be begun immediately, the matter would be brought to him without delay.

#### CHAPTER X

#### THE JOB IN PROCESS

TE will continue with the manufacture of Hayes & Company's letter-heads. The compositor receives from the foreman the envelope containing copy, together with verbal instructions as to style, size of type, and other details, unless these have been noted on the envelope, as should invariably be done. Having followed instructions, compositor pulls proofs for the office, and places them in the envelope. After the office o.k. has been affixed, the proof goes to Hayes & Company and envelope is properly filed in the second compartment of the job-box—this section being intended for such work as is awaiting the return of proofs. Hayes & Company retain the proof until the following day; corrections being made, the envelope goes to the third compartment, and thence in due time to the press-room. Here instructions are noted concerning stock, ink, binding, and all details, and the number of full sheets cut is written. When the job is finished, three perfect samples are put in the envelope and it is placed in the fourth or "completed" compartment of the box, there to rest until it is taken by the bookkeeper. The entire process, as well as the procedure of ascertaining and computing labor spent by each man on each job, is simplicity itself. Far less time is required than for any other system whose results are even approximately so satisfactory.

Each workman has a time-ticket (Fig. 6) divided into ten-minute periods, thus allowing space for record of every minute expended on a piece of work during the day. By it both time of starting and time of finishing, on any job,

			Date Aug 6	112	190
A. M.	Hr.	Mts.	P. M.	Hr.	M to.
To Comp. Thyse of That			17		
10 Comp. Thezes L. That	1	30	20		1
50			40 Comp. Heli Cit.		15
8		-	2	+	-
10		1	Z.	1	1
30 0 . 4		1	30		
30 Comp. Things Circul	m//	10	140 150		
9	-		30 + 1 0 400		120
10			Conecting proof thee	7 1	
200	1		X Russes		20
40			50		
10	-	-	4	-	$\vdash$
10			10		
269			30		1
40 50	1		50 Distribution	١.	1
11 '	-	-	X	1	20
10		1	10		1
20		1	30		1
40			40		1
31 6 1 7/10 61	-	220	50	+-	-
& Comp. Hell's Cataly	-	20	6 10		1
20			20	1	1
40			40		1
50		1	50	_	-

FIG. 6—THE TIME-TICKET

can be seen at a glance. One ticket suffices each man for a day, and at night it is handed in at the office. The book-keeper takes from these tickets the time expended on the several jobs and writes it on the job-ticket under the corresponding operation thereon listed. It is an easy matter to get the total time spent on each successive stage of the work, and here is also shown the exact proportion of time that is productive; that is to say, what portion of it is really charged to work in process and what to lost or

unproductive time. As the book-keeper charges each item he checks it to make sure that nothing is omitted. (For convenience, we show only one time-ticket of the several on which charges to Hayes & Company appear. The different operations on the job used as an illustration will be found on different tickets.)

Upon the completion of a job and the entry upon the job-ticket of all items of labor at the hour-rate decided upon (see chapter on Determining Cost), the columns of the ticket are footed. The second column will show total charges for stock and outside work, the third column total charge for labor. A study of the job-ticket made out for Hayes & Company (Fig. 1) will show how these items are entered. Tickets should be written daily and charged on the journal at least once a week; the task cannot then become irksome or outrun ability to handle it readily.

Samples of tickets and blanks used in this office will be sent gladly, without charge, to any who may be interested in the system herein outlined.

#### CHAPTER XI

#### DETERMINING COST

THIS eternal question of "cost" is the bane of the printer's waking and sleeping hours. Hundreds upon hundreds of pages have of late been written concerning the matter; scores of speeches and papers prepared; countless controversies carried on in trade papers; and the end is not yet. The subject is complex, fascinating, bewildering;—we can but approach it fearsomely.

We do not attempt to pass upon the merits of the question further than to say that all we have ever read as to printing-office costs and methods of ascertaining them has had to do with houses of the larger class, completely ignoring that great army of concerns doing a business of \$5000 to \$25,000 a year. It is for this latter class—this class to which our plant belongs, whose history we have herein set forth—that this book, and this chapter, will be found particularly well adapted. Yet the system is not confined to these plants, for it is capable of indefinite extension, even though a \$100,000 business has many items of expense entirely unknown to a \$10,000 output.

At the very beginning, it must be thoroughly impressed upon one's mind that the printer in business for himself should at the least get enough out of it to pay him a reasonable salary for services rendered, five per cent. on capital invested, not less than ten per cent. for wear and tear and depreciation on material comprising the plant, andmost important of all-fifteen per cent. for profit on the amount of business done. It is just here that so many printers, old and young, make the mistake of their lives. Such a printer seems to think that if he gets a few dollars more each week out of the business than he received as journeyman or foreman, he is "making money." Beware! There is a day of reckoning. Let him study the methods of a successful railroad or a great manufacturing corporation. Let it be known that it is only after deduction of expenses of every nature, including a heavy percentage for depreciation of plant and a sinking fund to renew equipment, that dividends are declared.

Let us suppose the printer has been established for one year, and has acquired a plant valued at \$3200; a volume of business sufficient to warrant the employment of a foreman at \$18 a week, a compositor at \$15, an apprentice at \$6, a pressman at \$15, and two feeders at \$9 and \$6 respectively. The foreman reads proof subject to final revision in the office, makes up forms, lays out and supervises work; the pressman cuts stock and makes jobs ready for the feeders. The proprietor gives his entire time to the management of the concern, and for this he allows himself a salary of \$1500. He is his own bookkeeper; he attends to all details of clerical work, buying, selling, soliciting; his only assistant the office-boy.

He divides his plant into three departments,—office, composing-room, press-room. Outside of the office, each department bears that proportion of the general expense at which the inventory shows it to be valued. The office furniture and fixtures are appraised at \$200, hence the value of the composing-room and press-room together is \$3000. The composing-room inventories \$1800 and the press-room \$1200; they should therefore bear three-fifths and two-fifths of the office expense, respectively.

The following tables are compiled from the books of a plant valued at \$3200 and doing an annual business of from \$8000 to \$10,000. To do so large an amount of business in an office equipped with no more than two job presses may seem doubtful to some printers, but it is now being done with ease, as indeed for the past five years, by a plant having a \$3200 modern equipment. Carefully-kept records show that at least 33½% of the time in the composing-room is non-productive, and nearly 40% in the press-room. All expenditures outside of those actually entering into the cost of operating these two rooms are charged as "office expenses," that they be not confused with "general expense," which includes both "office expenses" and expenses directly chargeable to each of the other two departments.

OFFICE EXPENSES	Inventory \$200
Manager (owner) '	\$1500
Interest on Office Fixtures (\$200 at 5%)	10
Depreciation on Office Fixtures (\$200 at 10%)	20
Bad Accounts (2% of amount of business done)	200
Interest on Book Accounts (\$1000 at 5%)	50
Interest on Paper Stock (an average of \$800 at 5%)	40
Errand Boy (\$3.50 a week)	175
Postage and Advertising	180
Express, Freight, Cartage	150
Telephone	45
Office Stationery	40
Telegrams, Wrapping-Paper, Twine	10
Trade Journals, etc	10
Soap, Towels, Carfare, Messenger, Ice, etc	20
Light	10
Total Office Expense for year	\$2460

Interest on \$1800 at 5%					
Depreciation on \$1800 at 10%   180		COMPOSIN	G-ROOM	Invento	ry \$1800
*Three-fifths Rent (\$300)				. \$ 9	0
Three-fifths Insurance (\$40 on \$3000) . 24 Three-fifths Taxes (.015 on \$3000 = \$45) . 27 Three-fifths Light (\$25 a year) . 15 Accidents, Pi, Broken Type, Damaged Material,  Waste, Proof-Paper, Twine, Sponges, etc. 20 Errors in proof-reading, etc			•	. 18	0
Three-fifths Taxes (.015 on \$3000 = \$45)	*Three-fifths Rent (\$30	00) .		. 18	0
Three-fifths Light (\$25 a year)				. 2	4
Accidents, Pi, Broken Type, Damaged Material,  Waste, Proof-Paper, Twine, Sponges, etc.  Errors in proof-reading, etc.  Three-fifths Office Expense (\$2460)  Total Composing-Room Expense for year aside from Wages  WAGES:  Foreman \$18 week, \$3.00 day Compositor 15 week, 2.50 day Apprentice 6 week, 1.00 day  \$6.50 daily wages  6.82 daily general expense  9 hours) \$13.32 cost CompRoom for day of 9 hours  \$1.48 cost CompRoom each hour of 9-hour day  6 productive hours) \$13.32 cost CompRoom for day of 9 hours  3 men) \$2.22 cost for each productive hour  Add for profit, 15% \$11  \$.85 average cost for a man each productive hour  PRESS-ROOM  Inventory \$1200  Interest on \$1200 at 5% . \$60  Depreciation on \$1200 at 10% . \$20  *Two-fifths Rent (\$300) . \$120  Two-fifths Insurance (\$40 on \$3000) . \$16  Two-fifths Taxes (.015 on \$3000 = \$45) . \$18  Two-fifths Light (\$25 a year) . \$10	Three-fifths Taxes (.01	5 on \$3000 :	= \$45)	. 2	7
Waste, Proof-Paper, Twine, Sponges, etc.  Errors in proof-reading, etc					5
Errors in proof-reading, etc					
Three-fifths Office Expense (\$2460)			Sponges, etc	c. 2	0
Three-fifths Office Expense (\$2460)	Errors in proof-reading,	etc		. 3	
## Total Composing-Room Expense for year aside from Wages \$2046  WAGES:  Foreman \$18 week, \$ 3.00 day Compositor 15 week, 2.50 day Apprentice 6 week, 1.00 day \$6.82 Daily Gen. Exp.    \$6.50 daily wages 6.82 daily general expense 9 hours   \$13.32 cost CompRoom for day of 9 hours   \$13.32 cost CompRoom each hour of 9-hour day   \$2.22 cost for each productive hour   \$2.22 cost for each productive hour   \$2.22 cost for each productive hour   \$3 men   \$2.22 cost for each productive hour   \$4 men   \$4 me					-
WAGES: Foreman \$18 week, \$ 3.00 day Compositor 15 week, 2.50 day Apprentice 6 week, 1.00 day \$ 6.50 daily wages 6.82 daily general expense 9 hours) \$ 13.32 cost CompRoom for day of 9 hours \$ 1.48 cost CompRoom for day of 9 hours 9 hours) \$ 2.22 cost for each productive hour \$ .74 average cost for a man each productive hour Add for profit, 15% \$ .11 \$ .85 average selling hour-rate for each man  PRESS-ROOM  Inventory \$1200  Interest on \$1200 at 5% \$ 60  Depreciation on \$1200 at 10%	Three-fifths Office Expe	nse (\$2460)	•	•	1476
Foreman \$18 week, \$ 3.00 day Compositor 15 week, 2.50 day Apprentice 6 week, 1.00 day  \$\frac{6.82}{6.50}\$ daily wages  \$\frac{6.82}{56.82}\$ Daily Gen. Exp.  \$\frac{6.82}{56.82}\$ Daily	Total Composing-R	oom Expense	for year asid	de from Wages	\$2046
Compositor 15 week, 2.50 day Apprentice 6 week, 1.00 day \$ 6.50 daily wages 6.82 daily general expense 9 hours \$ \$13.32 cost CompRoom for day of 9 hours \$ 1.48 cost CompRoom for day of 9 hours 3 men \$ \$ 2.22 cost for each productive hour	WAGES:				
Compositor 15 week, 2.50 day Apprentice 6 week, 1.00 day  \$ 6.50 daily wages 6.82 daily general expense 9 hours) \$ 13.32 cost CompRoom for day of 9 hours \$ 1.48 cost CompRoom for day of 9 hours 3 men) \$ 2.22 cost for each productive hour  Add for profit, 15% \$ .11 \$ .85 average cost for a man each productive hour  PRESS-ROOM Inventory \$1200  Interest on \$1200 at 5%	Foreman \$18 week, \$	3.00 day		4 ( C	F
1.00 daily wages   6.50 daily wages   6.82 daily general expense   9 hours   \$13.32 cost CompRoom for day of 9 hours   \$1.48 cost CompRoom each hour of 9-hour day   6 productive hours   \$1.48 cost CompRoom for day of 9 hours   3 men   \$2.22 cost for each productive hour   \$2.24 average cost for a man each productive hour   4			300 days )	\$2040 Gen.	Expense
\$\frac{6.50}{6.82}\$ daily wages \$\frac{6.82}{6.82}\$ daily general expense  9 hours \$\frac{\$\\$\frac{13.32}{\$\\$\}\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Apprentice 6 week,	1.00 day		\$6.82 Daily G	en.Exp.
6.8z daily general expense   9 hours   \$\frac{\$13.3z}{\$1.48}\$ cost CompRoom for day of 9 hours   \$\frac{\$13.3z}{\$1.48}\$ cost CompRoom each hour of 9-hour day   6 productive hours   \$\frac{\$13.3z}{\$2.2z}\$ cost CompRoom for day of 9 hours   3 men   \$\frac{\$2.2z}{\$3.2z}\$ cost for each productive hour   4 Add for profit, \$15\%   \$\frac{\$11}{\$\$5.85}\$ average cost for a man each productive hour   8 \frac{\$11}{\$\$5.85}\$ average selling hour-rate for each man   PRESS-ROOM   Inventory \$1200    Interest on \$1200 at 5\%   \$60   Depreciation on \$1200 at 10\%   \$120    *Two-fifths Rent (\$300)   \$120    *Two-fifths Insurance (\$40 on \$3000)   \$16    Two-fifths Taxes (.015 on \$3000 = \$45)   \$18    Two-fifths Light (\$25 a year)   \$10    Power, one-horse electric motor   \$72			vages		
9 hours ) \$\frac{\$\frac{\$\frac{13.32}{\$\frac{1.48}{\$\frac{1.48}{\$\cost CompRoom for day of 9 hours}}{\$\frac{\$\frac{1.48}{\$\cost CompRoom each hour of 9-hour day}}}\$ 6 productive hours ) \$\frac{\$\frac{\$\frac{13.32}{\$\cost CompRoom for day of 9 hours}}{\$\frac{\$\frac{\$\frac{1.48}{\$\cost CompRoom for day of 9 hours}}{\$\frac{\$\frac{1.48}{\$\cost CompRoom for day of 9 hours}}{\$\frac{9}{\cost CompRoom for day of 9 hours}}{\$\frac{1.48}{\$\cost CompRoom for day of 9 hours}}{\$\frac{1.48}{\$\frac{1.48}{\$\cost CompRoom for day of 9 hours}}{\$\frac{1.48}{\$\cost CompRoom for day of 9 hours}}{\$\cost CompRoom for day of 9 hours}}{\$\frac{1.48}{\$\cost CompRoom for day of 9 hours}}{\$\cost CompRoom for day of 9	*			nse	
\$ 1.48 cost Comp Room each hour of 9-hour day  6 productive hours  3 men  \$ 13.32 cost Comp Room for day of 9 hours  3 men  \$ 2.22 cost for each productive hour  \$ .74 average cost for a man each productive hour  Add for profit, 15%  \$ .11  \$ .85 average selling hour-rate for each man  PRESS-ROOM  Inventory \$1200  Interest on \$1200 at 5%  Depreciation on \$1200 at 10%  *Two-fifths Rent (\$300)  Two-fifths Insurance (\$40 on \$3000)  Two-fifths Taxes (.015 on \$3000 = \$45)  Two-fifths Light (\$25 a year)  Power, one-horse electric motor  \$ 120 to 120  120  130  140  150  160  170  170  170  170  170  170  17	o hours \ ¢				hours
6 productive hours ) \$13.32 cost CompRoom for day of 9 hours 3 men ) \$\frac{\$\frac{5}{2.22}}{\$\frac{5}{2.22}}\$ cost for each productive hour  Add for profit, 15% \$\frac{5}{11}\$ \$\frac{\$\frac{5}{3}\$ average cost for a man each productive hour  Add for profit, 15% \$\frac{5}{11}\$ \$\frac{\$\frac{5}{3}\$ average selling hour-rate for each man  PRESS-ROOM Inventory \$1200  Interest on \$1200 at 5% \$60  Depreciation on \$1200 at 10% \$120  *Two-fifths Rent (\$300) \$120  *Two-fifths Insurance (\$40 on \$3000) \$16  Two-fifths Taxes (.015 on \$3000 = \$45) \$18  Two-fifths Light (\$25 a year) \$10  Power, one-horse electric motor \$72					
3 men ) \$\frac{\$\\$z.2z}{\$\\$z.74}\$ average cost for each productive hour  Add for profit, 15% \$\frac{\$\\$11}{\$\\$85}\$ average selling hour-rate for each man  PRESS-ROOM Inventory \$\\$1200\$  Interest on \$1200 at 5% \$ 60  Depreciation on \$1200 at 10% \$ 60  Two-fifths Rent (\$300)	Þ	1.40 COSt C	omp Room	reach hour or 9	-nour day
Add for profit, 15% \$\$\\$\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	6 productive hours ) \$13	3.32 cost Cor	npRoom	for day of 9 ho	urs
Add for profit, 15% \$ .11 \$ .85 average selling hour-rate for each man PRESS-ROOM Inventory \$1200  Interest on \$1200 at 5% \$ 60  Depreciation on \$1200 at 10%	3 men ) \$ 2	2.22 cost for	each produé	tive hour	
Add for profit, 15% \$ .11 \$ .85 average selling hour-rate for each man PRESS-ROOM Inventory \$1200  Interest on \$1200 at 5% \$ 60  Depreciation on \$1200 at 10%	\$				tive hour
PRESS-ROOM Inventory \$1200  Interest on \$1200 at 5% \$ 60  Depreciation on \$1200 at 10%	Add for profit, 15% \$			•	
PRESS-ROOM Inventory \$1200  Interest on \$1200 at 5% \$ 60  Depreciation on \$1200 at 10%	\$	.85 average	selling hour-	rate for each m	an
Interest on \$1200 at 5% \$ 60  Depreciation on \$1200 at 10%		_	•		
Depreciation on \$1200 at 10%		PRESS-R	ООМ	Inventor	y \$1200
*Two-fifths Rent (\$300)	Interest on \$1200 at 5%	•		. \$ 60	5
Two-fifths Insurance (\$40 on \$3000) . 16 Two-fifths Taxes (.015 on \$3000 = \$45) . 18 Two-fifths Light (\$25 a year) . 10 Power, one-horse electric motor	Depreciation on \$1200 a	it 10%	•	. I 20	)
Two-fifths Taxes (.015 on \$3000 = \$45)				. I 20	)
Two-fifths Taxes (.015 on \$3000 = \$45)	Two-fifths Insurance (\$4	10 on \$3000	)	. 10	5
Power, one-horse electric motor				. 18	3
	Two-fifths Light (\$25 a	year)		. 10	)
Ink 60	Power, one-horse electric	motor		. 73	2
	Ink			. 60	
Forward . \$ 476	I	Forward			\$ 476

	Forwar	rd .			\$ 476	
Accidents, Delays for I	Repairs,	Broken	Parts, e	tc.	35	
Errors in cutting stock,					35	
Rollers, Brayers, Brush	es, Bro	oms			15	
Oil, Benzine, Lye			•		10	
Sundry Expenses					25	
						\$ 596
Two-fifths Office Expe	ense (\$2	2460)	•	•		984
Total Press-Room	Expen	se for y	ear aside	from W	ages	\$1580
WAGES:			,			
Pressman \$15 week,	\$ 2.50	day	300 day	rs ) \$158	o Gen. Ex	pense
Feeder 9 week,		day		\$5.27	Daily Ger	.Exp.
Feeder 6 week,						
	F 3	daily v	_			
			eneral e			
9 hours )	\$10.27	cost Pi	ess-Roo	m for day	of 9 hour	'S
	\$ 1.14	cost Pr	ess-Roo	m each h	our of 9-h	our day
5 productive hours ) \$	10.27	ost Pres	s-Room	for day	of 9 hours	
3 men ) \$	2.05	cost for	each pro	ductive h	our	
\$	.68 a	verage o	cost for a	a man ead	ch producti	ve hour
Add for profit, 15% \$	.10					
\$	.78 a	verage s	elling ho	our-rate fo	or each man	1

\*The items of rent, insurance, taxes, and light are apportioned to the manufacturing departments in accordance with the ratio the inventory of each department bears to the general inventory after deducting office furniture. Thus the composing-room (\$1800) is three-fifths, while the pressroom (\$1200) is two-fifths of the general inventory (\$3200 - \$200 office furniture = \$3000).

Careful study of these tables will show just how each portion of the expense of doing business is ascertained. Office expense amounts to \$2460 a year, composing-room expense to \$570, the press-room expense to \$596. To determine the proportion of general expense of each of these departments to be added to the wage cost, that share of the office department is added in ratio to the value of

each of those two departments. In the composing-room, which bears three-fifths of the office expense of \$2460, cost of operating is found to be \$570 plus \$1476, or \$2046 for the year. On a basis of 300 working days, this makes the cost of operating the composing-room, aside from wages, \$6.82 for a day of nine hours. Three men are employed,—a foreman at \$3.00 a day, a compositor at \$2.50, an apprentice at \$1.00; total daily wages for composingroom, \$6.50. We have already ascertained the general expense of the composing-room to be \$2046 for 300 days, or \$6.82 a day of nine hours. This, added to the wages cost (\$6.50), makes the total cost of composing-room time \$13.32 for a nine-hour day, or \$1.48 an hour. But experience has taught that in a composing-room there are not more than six productive hours in the average day. We therefore divide the day-cost (\$13.32) by 6 instead of 9, and thus find that the cost for each productive hour is \$2.22, or an average of 74 cents for each man. To this should be added 15% for profit, making 85 cents the rate to be charged for composing-room time. Now the apprentice, who receives but \$1.00 a day, produces not more than the relative amount of work for which he is paid, and to charge 85 cents an hour for his time would be manifestly unreasonable. It would, however, be proper to charge the productive time of the three men at such an hour-rate each as would bear practically the same relation to other hour-rates as wages paid to each bear to other wages, the totals being of course the same. This would be say \$1.00 for the foreman, 90 cents for the journeyman compositor, and 65 cents for the apprentice. This for the apprentice may seem high, but it must not be forgotten that he is constantly receiving instruction from foreman or compositor, for whose time thus employed no charge could otherwise be made, and that some commercial value attaches to the time of an apprentice who has advanced to the six-dollar-a-week stage.

Three men also are required in the press-room,—a pressman at \$2.50 a day, a feeder at \$1.50, and a boy who is learning to feed and can attend to padding and gathering and wrapping finished work, at \$1.00; total daily wages for press-room, \$5.00. The table shows the general expense of the press-room to be \$1580 for 300 days, or \$5.27 a day of nine hours. This, added to the wages cost (\$5.00), makes the total cost of press-room time \$10.27 for a nine-hour day, or \$1.14 an hour. But the productive hours in the press-room are not more than five out of nine. We therefore divide the day-cost (\$10.27) by 5 instead of 9, and thus find that the cost for each productive hour is \$2.05, or an average of 68 cents for each man. To this should be added 15% for profit, making 78 cents the rate to be charged for press-room time. The same argument holds good in apportioning time in the pressroom according to the worth of each man, so we would charge 95 cents for the pressman, 80 cents for the feeder, and 60 cents for the boy, instead of 78 cents for each.

By this system each department bears a part of the general expense proportioned to its value. Each department will cost more or less according to the work produced. It is here assumed that six men are *steadily* employed, and upon that basis the hour-cost is figured. Should an extra man be put on, as must often be the case when work is rushing, it will not be necessary to re-adjust the proportion of general expense that each man's time must bear. If he be paid \$2.50 a day, his time should be charged at

the same hour-rate as that of another regular employee receiving a like amount. There is in this some "fat" for the office, to be sure; but the new man will be unfamiliar with the layout and material of the plant, and the style of the office. His consequent loss of time will be hardly more than compensated by neglecting to reduce the proportion of general expense attaching to the time of those regularly employed and adding it to that of the extra man. Should this extra temporary man become a permanent employee, his time would then bear its proportion of the general expense. A memorandum of the figures used should be kept for reference, and when it becomes necessary to re-adjust them because of employment of additional help, it can be done very easily and quickly.

To determine cost or selling price of stock, add a percentage for transportation, handling and spoilage. Five per cent. is not too much to allow for waste of paper in printing—far more may be required for short runs of fine work or close register. A charge of twenty per cent. for transportation, storage, and handling should be made on large lots of paper; on jobs for which stock costs \$25 to \$50, 25%; from \$5 to \$25, 33½%; less than \$5, 50%. These percentages are purely arbitrary, but experience teaches that they are none too high. Cutting should be charged at the same hour-rate as press-work.

### CHAPTER XII

#### BOOKKEEPING

F the printer possesses no knowledge of bookkeeping there is little likelihood that he will become a successful business man; for unless one has constant and accurate information as to the state of his finances, he is inviting ruin and disaster. This information can be gained in no other way so well as by double-entry bookkeeping. Many books there are, designed to aid the printer in his oft-laborious task of ascertaining and recording transactions in cash or credit—principally the latter. Of great assistance, too, in the solution of the cost-question from actual records (and this is the only correct solution), they are still unable to protect him from the pitfalls that are so thickly strewn along the thorny pathway to success. Better, indeed, to enter business life without capital than without knowledge of bookkeeping. The double-entry theory is easily mastered and as readily applied to the printing business. Its accomplishment is one of the most valuable assets a business man can have, and the apprentice of today, who is the business man of tomorrow, will do well to study the subject during his leisure hours.

Applying this system to the office now under consideration, it is necessary first to ascertain the hour-rate at which labor is to be charged. This having been done as set forth in the preceding chapter ("Determining Cost") time of the different operations is transferred from time-

tickets to job-ticket and columns footed. The bookkeeper then charges the jobs on the journal under head of "Sundries Dr. To Mdse." (Fig. 7.) As each item is entered

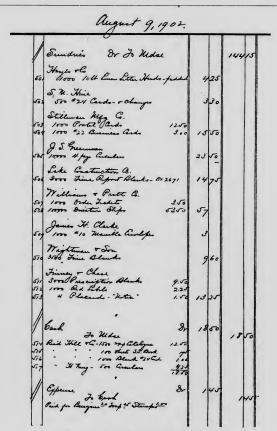


FIG. 7-A PAGE FROM THE JOURNAL

under this heading it is numbered and the same number written in the lower left-hand corner of the job-ticket (Fig. 1) in the proper place.

After the several jobs have been thus charged on the journal, the card-index (Fig. 8) is written up. This con-

200 Gues L' Head	
3,5 Statement	
302 Envelope	
402 Circular	
403 Business and	
501 Linen L. Head	

FIG. 8 - THE CARD-INDEX

sists of a series of ruled cards 3 x 5 inches in size, fitting a box provided with movable indexes of the same size, alphabetically arranged and subdivided. Several of these systems, varying only in detail, are on the market. Cost, including box, cards and indexes, is about \$1.50; additional cards may be printed by the office at any time. The box should be kept in the top left-hand drawer of the manager's desk. On the top of the card is written the name of the customer; in the second column a number corresponding with that of the journal charge and the job-ticket, and this is followed by a brief description of the job. The card is then placed in the index-box under the proper letter. Now from the fourth or "completed work" section of the job-envelope boxes (Fig. 3) take the job-envelope (Fig. 2) and in the space reserved for it in the upper lefthand corner write the number already appearing on jobticket and journal charge, and file the envelope. For this we utilize part of the top of the manager's desk, whereon is a frame 24 inches long, 11 inches wide and 10½ inches high, built originally of strips of four-line reglet, varnished. Within this frame (which may be made as much longer as desired, and for which light brass or japanned iron wire looks exceedingly well) there may be kept five hundred envelopes or more, numerically arranged. When it is filled, remove one hundred of the lowest-numbered envelopes and store them, neatly wrapped and labelled, in the stock-room.

By means of the number on the index-card, the entire history of any job is instantly available. This number gives the journal entry, and also locates the job-ticket with a record of the various operations on the job, and the job-envelope with original copy, proofs, and two or three samples of the finished work. There is no hunting for lost copy, no tedious search through cumbersome sample-books for a copy of the job, no lost record of its cost. When an order comes to "duplicate last lot," a sample and all necessary information, including price, is immediately at hand. This feature alone is of inestimable value, yet it is but one of many reasons which make the card index of greatest imaginable worth to the modern business man. Upon completion of a job which is a duplicate of an order previously received, careful comparison of both former and latter job-tickets should be made. Nothing else will give so clear an insight into the value of work as this comparison of cost of one job with kindred jobs.

The manager should make it a rule to transfer the time from time-ticket to job-ticket daily, to transfer charges from job-ticket to journal at least once a week, and to take a trial-balance of his books every month. This balance must be made to come out correct—to balance; and although locating an error on a trial-balance sheet is most tedious, the task should not be dropped until the error is found and corrected. Entries being footed and transferred properly, the balance cannot fail to result. From the trial-balance should be drawn up a monthly statement showing assets and liabilities. At the end of the fiscal year, books should be closed, interest, depreciation, and uncollectible accounts charged off, inventory taken, accounts balanced, and the percentage of profit—if this system be followed it certainly cannot be loss—duly ascertained.

It will be easy to take inventory if a book be kept in which is entered a record, as soon as it is purchased, of all material that is to remain permanently in the office. Only the stock, which is constantly fluctuating, need then be counted and listed at each inventory. In addition to the ledger accounts of Merchandise, Stock, Cash, and Profit and Loss, these also should be kept: Cartage, Expense, Advertising, Spoilage, and Discount. Under Expense is to be included every item not chargeable to any of these other accounts.

The printer who desires to start in business for himself but has no understanding of bookkeeping should have a competent accountant open a set of books and instruct him in their proper use. It will repay him a thousandfold.

#### CHAPTER XIII

#### PREPARING AND GIVING ESTIMATES

ORE failures of printers have been charged to errors in estimating—to what Mr. Herbert L. Baker rightly calls "guesstimating"—than to almost all other causes combined. Some truth there is in this, but the generalization is far too sweeping. Broadly speaking, the printer who is careless, incompetent, hasty, indifferent in his estimating is so to an extent in the conduct of his business. Hence, the lopping of faults in this department is but hand-in-hand with similar work in all the plant. The degree of care applied to estimating that is applied to mechanical and financial features will not fail to result in satisfaction and profit. But-that no losses occur through divergence between estimate and product, it is necessary that the hand of the workman be no less nimble than the brain of the estimator; that when experienced judgment says that a certain job ought to be set or run in a given time, it must be so set or so run. On the ability to obtain this result depends success of manager, profit of plant. Hear the American Printer on this theme. It is in direct accord with what is said elsewhere in these pages regarding the necessity of teaching workmen their trade and something more, and of creating and maintaining that unity of good-feeling-that esprit de corps-without which no office, no business, can attain best results.

That through ignorance much work is done at less than cost goes with-

out denial. Yet to put all or most of the blame on faulty estimating is far from just to the many first-class men who are perfectly competent. The up-to-date printer does not so often under-estimate what the work should cost. Neither is the prevailing price, generally speaking, much below what it should be to allow a good, liberal margin of profit, if the work be done by skilled labor. Where, then, is to be found the cause of all this loss? One great cause lies in waste of time while inefficient workmen are hesitating and experimenting. To anyone in constant touch with the details of printing, it is apparent that incompetency causes more losses than does careless estimating. For in printing, labor often forms by far the largest item of cost, and hence to increase this item of expense to any extent is certain to wipe out profit and even cause loss. How to induce the rising generation to secure a knowledge of detail sufficient to ensure the best work with the least expenditure of time—this is the problem we must answer correctly if we would make the printing of the future a business of profit and pleasure. In other words, printing will be a success only when run on true business principles. One thing is certain: a cheap, unskilled workman is not profitable to himself or to his employer. With no systematic instruction and no one to explain the cause and the fundamental principles, so that reason should re-enforce the hand, one seldom comes to be sufficiently skilled to execute work at a profit. The hope for the future, then, lies largely in so training the young that they shall lay a firm foundation of knowledge of the details that shall make it possible for them to do the very best of work in less time than it takes the inexperienced to do poor work.

A most fruitful source of error in estimating is compliance with requests to give figures off-hand, verbally, or more frequently by telephone while Central punctuates the mental calculations with a sweetly-spoken but maddening "Waiting?" Decline if possible to accede to such requests, unless for standard work, as stationery and the like, where prices are already fixed. For anything that calls for computation and has an element of uncertainty as to amount of labor, there should be time sufficient for careful consideration, it being explained that in this way only can there be prepared an estimate at all just to both parties. We find it best to have all estimates made by two experienced men, working simultaneously but quite indepen-

dently, whose items and totals are carefully verified before estimate-blanks are exchanged and compared. Differences are noted, errors corrected (these are usually matters of minutiæ only and scarcely affect the result), and a new estimate written in accordance with the best knowledge obtainable, a carbon-copy being of course retained of the letter sent to the prospective customer. The original blank, containing all information, is filed; entry of name, date, character of work, and price, is made on a card-index. Should the order be secured, that fact, together with date of completion, may also be noted. For estimate-blanks, we use the job-ticket already illustrated (Fig. 1). Hereon are listed in detail all operations necessary for the production of the work, so arranged that there is little possibility of overlooking any of them, with columns for net and gross cost of all items.

By this plan of estimating, the chances of omitting or overlooking any items of cost—and these chances always exist, even with blanks prepared most carefully—are minimized. The index gives instant access to the details of any estimate. And of greatest importance is it that each item of cost of the finished job, as shown by the job-ticket, should be compared with the corresponding figures on the estimate-blank. Enquire closely into any variance. If unusual circumstances militated against production of the job at the price expected, specify them on the ticket. If errors of judgment or computation caused loss, here is safeguard against their repetition, for all subsequent estimates are to be made on knowledge acquired by means of these records and this comparison. The basis of computation is of course the selling price of materials and labor, ascertained as set forth in the chapter on "Determining Cost."

Exercise what has been aptly described as "of all things most desirable but most uncommon—good commonsense" in giving estimates. Quite useless is it to expend time and toil on bids for work which is known to be peddled through all the offices in town in the hope of saving ten or fifteen cents on a five-dollar job. Someone is certain to figure so low that there's no profit in the job when it is done; and the earnest aim of every printer should be to secure only those orders that yield him profit, allowing his competitors to perspire over those where profit is not. If all printers would but follow this plan, there would be none to accept the profitless work, and this from very force of circumstance must soon become profit-bearing. Until such time as that, see to it that at least you, reader, handle nothing that does not produce revenue.

Never allow a customer to make the price for his printing. Prepare estimates according to your best knowledge and verify them; then when figures have been made, maintain them consistently. If specifications change, make only corresponding changes in price. Should it be said that a neighboring printer will do the job for a little less than the price you have named, answer that he will doubtless give the value of the money, but that the work you plan to do will be worth more to the customer than that which the neighbor is to give, and show plainly why your work is to be preferred to his. If the difference in price prove too great to be overcome in this way, say pleasantly,-"Sorry, for we'd like to do this work, and we'll produce a job thoroughly first-class and satisfactory to you; but we cannot do it at such a price. Isn't it possible that our friend and neighbor has made a mistake, or is not fully conversant with all the facts in the case, or is not figuring

on precisely the same as this you have brought us? At any rate, we have given you a price as low as we can make for the grade of printing we do, and we are confident that if you will leave the job you will be pleased with the result and will be willing to pay our price."

Sometimes this will be effectual and the order will be left without further parley; but if the lower price be still insisted on, there is nothing to do save smile and assure the customer that you will be pleased to meet him again whenever he may have other work. See that he leaves pleasantly, whether his order be taken or left. Do not "knock" a competitor in the presence of his customer, or your customer, or anyone.

Never take printing at a price less than is known to be profitable. Be assured that it is better to be for the moment idle than to fill the office with work to be billed at so low a price that there is temptation to resort to questionable methods to avoid loss. Do not take "fillers" at any price. Money is almost invariably lost, the result is unsatisfactory, the orderly procedure of the office is interrupted, and the work which is quite likely to come soon at profitable rates cannot be so well handled.

#### CHAPTER XIV

#### COLLECTIONS AND PAYMENTS

ERE, as at the axis of a circle, are centered all the forces that make for and against the final profit of the printer. Be he never so well-fitted or so well-equipped, never so careful in locating and outfitting his plant, never so wise in the selection and management of his employees, never so ardent and tireless in the seeking and the production of that class of work for which he is best intended and which should thus yield him greatest revenue,-all these avail nothing unless he be prompt and careful in this most vital matter of obtaining what is his due and paying others what is their due. Every wheel in a printing plant may turn at lightning speed; but if they turn without profit, or at a profit that is lost because not collected, 'twere better far that they turn not at all. This, then, is the climax,—the crown of that fabric of sound business principles and common honesty to one's self and one's neighbor whose foundation is knowledge of costs and methods of ascertaining them, whose superstructure is the continuous, faithful, intelligent application to questions of daily business of these costs and this knowledge as revised and perfected in the light of wider experiences or fuller information, whose apex is the tactful ability to make customers pay willingly for work finished and delivered.

Little anxiety need be felt as to collection of bills against

that great class of merchants and manufacturers forming perhaps the main body of printers' customers,—those who leave the order, allow reasonable time for production of the work, and send check in payment within three or four weeks. This custom the printer seeks; to it he gives most careful attention; from it he derives profit and that inward glow which comes from knowledge of work well done and appreciated. But over against these stand two classes—nay, a third is also there—upon which may be charged all the burden of care from which the first is free.

Foremost in this list place those who may have little printing, yet are financially sound and are personally known to the printer-manager. Such a one will place a small order—rarely more than \$10, frequently less than \$5. Goods are delivered, invoice mailed, statements rendered, all without bringing what Eugene Field loved to refer to as "ye pelfe." Thoughtlessness, more often than other reasons, is responsible for this failure to pay, which may continue for months. To these, and indeed to all whose accounts are overdue, we send a "Past-Due" statement showing date and amount of each item, suggesting that the matter may have escaped attention and inviting remittance without delay. This is so worded that no exception to it could be taken by even a super-sensitive debtor, and very frequently the desired check is at once forthcoming. But should this notice fail of effect, a similar statement is sent by the office-boy, with request that payment be made to him. The account is three months old or more, and unless there now comes the cash or a definite promise to pay at a specified date in the near future, it is placed on the list for immediate collection and persistent efforts made to that end. For such customers

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it is well to have invoices ready with the work, as thus many a bill is promptly paid which would otherwise linger for weary weeks. Furthermore, it simplifies bookkeeping and obviates the necessity of clogging the ledger with a multitude of small accounts.

Less frequent but more vexatious is the transient—a stranger to the printer and the town—who first demands an especially low price, then sometimes leaves an order without the cash, or even a deposit. Perhaps he is honest and will pay in due season, but often he never returns at all, or only to "take just a few, and come back in an hour or two for the rest" if the printer will allow it. He who is so unwise as to accept and produce work under such circumstances is not greatly to be pitied when the job is left on his hands, useless save to swell the receipts of the particular son of Cæsar who carries away the waste paper.

But still worse are those of the third class—those who have reached the tertiary stage—the plain dead-beats. It is these who obtain printing without slightest intention of ever paying for it, yet so plausible are they, so ready with glib excuse, that rare indeed is the printer who has not been victimized on more than one occasion. True, it is difficult to know these beats unless by actual experience; but once their character is learned no orders from them should be accepted unless fully paid in advance. And if they have succeeded in securing their printing without an exchange therefor of coin of the realm, use legal process to compel payment.

In this connection we cannot do better than to quote from an article by Mr. F. W. Thomas in the editorial columns of that great magazine *The Inland Printer*:

No bill under \$5 should ever be charged, except to those customers hav-

ing regular monthly accounts. It is an imposition for a transient or merely occasional customer to expect it. Cash in advance for small jobs should invariably be insisted upon from all strangers; on larger orders, cash or satisfactory references; and references, no matter how good, should be investigated before proceeding with the work. In asking for credit, a stranger is asking a favor, and it is legitimate and proper that he should be expected to prove his right to it before receiving it. If on polite request to pay cash or furnish references, he objects, it is fair evidence of bad intent, and loss of his order will prove a gain. The printer should make it his business to know the financial standing of all his customers, nor should he permit himself to get rusty on the subject. Losses from bad accounts should not come to more than one-half of one per cent. of total sales, but they will exceed this if the whole matter of credits is not closely watched. Collecting of large accounts should be prompt and persistent. The small or mediumsized office should not ordinarily have on its books, at any one time, more than the amount of one month's business.

I have said that credit is a favor. Printers need to have this impressed upon them, and they need to impress it tactfully upon their customers. Instead of "Do you want this charged?" the printer should say, "You wish to pay this bill now, do you not?" Much of the present habit of charging everything could be avoided by tact in handling customers. Let your expectation and manner spell cash; take it for granted that the customer intends to pay cash. Make him feel that credit is the unusual thing and has to be asked for, and many times he will pay cash, when, had your manner indicated that you did not expect cash, he would have said, "Mail me the bill." Invoices should be made out and sent with the goods or handed to the customer when he calls for the goods. Failure to have them ready on time, though apparently a minor matter, is responsible for the charging of many small items. When any bill is charged, other than to customers who have regular monthly accounts, there should always be a distinct understanding as to when the bill is to be paid, and a memorandum made and followed up promptly when the time arrives. Let the customer feel that you have his promise to pay that bill at a certain time and that you remember it and expect him to take up his promise.

Indefinite credit is disastrous. "Short accounts make long friends." Do not be afraid of offending people by asking for your money. The man who has owed you for three months is more apt to go to another printer for his next job than to come to you. The very fact that he owes you will keep him away. An old bill is harder to collect than a new one—don't let them get old. And above all, when the inevitable happens and an account does get decrepit, don't add to it. It is simply sending good money after bad.

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The man who will take offense at being made to pay one old bill would be angrier yet if you tried to make him pay two old bills.

The great majority of people will pay their bills with a reasonable degree of promptness if handled with tact and judgment, but there is a certain class who have no intention of paying anything and who go from shop to shop, taking advantage of the foolish secretive antagonism of printers among themselves, until they have held up every office in town. If there is an organization of printers in a city, one of its most profitable plans would be the mutual reporting of this class, so that, at the most, the depredations of each such rascal would be confined to the first offense. If there is no such organization, it would seem as if the instinct of self-preservation would dictate an immediate combination in this matter at least. Certainly no printer should object to reporting dead-beats to even his worst competitors if he receives like service in return.

But to resume consideration of those whose custom is desirable: Work having been completed and delivered, an invoice is mailed when the job-ticket charges are entered in the journal,—once a week or oftener,—and statements are rendered promptly on the first of each month for all work done up to that time. If no remittance should be received, a "Past-Due" notice is soon sent for all items more than thirty days old. This, however, is seldom necessary in dealings with this class of customers. So large a proportion of the cost of a piece of printed matter is labor which has been already paid for that the printer is hardly justified in granting discount for spot cash. He is a retailer -not a wholesaler or a jobber. The arguments that impel wholesale houses to grant this concession apply but feebly to him; his terms should be thirty days net. Yet there is a class of custom to which it may be advisable to allow a discount-for instance, manufacturing corporations which use much printing and make weekly settlements.

Wherever discounts are allowed by those from whom a printer buys, he should take advantage of them, and in any event he should make it a point to pay bills monthly. By so doing he will gain an enviable reputation as a man of promptness and methodical ways, and will obtain not only better service but better terms. Here will be found very useful that unexpended balance of the printer's funds referred to in Chapter II as having been banked for working capital, thus enabling him to meet bills as they become due without crippling his resources or paring his bank account to the quick.

STARTING A PRINTING-OFFICE

### CHAPTER XV

### ADVERTISING AND OFFICE STATIONERY

REATE advertising matter that shall be unique, forceful, attractive, successful. Put into it the very best that in you lies, whether the writing, the designing, or the printing. Seek by every means at your command to lift your own publicity far above that dreary level of mere mediocrity whereon are stagnating hundreds of printers. Impart to it a snap, a vitality, that shall make of it a shining exception to that great mass of hasty advertising which is weak in argument, crude in design, indifferent in execution, insufficient in results, generally unsatisfactory. For, speaking in a sense land-wide and broadly comprehensive, printers are not good advertisers. They cling too closely to precedents, or else they run too far afield in search of novelty,—and the one is as colorless as the other is elusive; either will detract from the true mission of the announcement, which is to bring business.

There are of course many printers whose advertising has reached so high a plane that naught save praise can be said concerning it. Witness to this is borne in the columns of trade journals month by month. That the number of these is not greater is very largely due, we believe, to indolence; to apparent lack of time but actual lack of inclination to produce or even prepare advertising announcements. There is a desire to await the time when business droops and orders falter; but when that comes copy is seldom at

hand, the advertisement is perhaps hurriedly constructed or perhaps laid aside for "that 'more convenient season' which cometh ne'er again."

Here, then, is the first requisite—do not wait for that "dull month" before writing or printing advertisements. Let the task of preparation be constant; let there be well-defined plans—a system—along which to work; have a regular list for mailing the announcements as issued, and correct it frequently; let it comprise names of all present patrons and those whom you desire to add to your clientele; vary the advertisements, and strive earnestly to make them unhackneyed, something to produce a pleasing and lasting impression. Prepare this list from the ledger, from city and telephone directories, and from all other sources. Include also the names of those in nearby towns who are or ought to be your customers. Send reminders at frequent intervals, say once in four or five weeks.

Cherish those forms of advertising whose value has been proven, and employ them always in most advantageous manner. Blotters, those long-time favorites of the printer, are always good advertising, and if used by one printer in a town and mailed to reach customers early on the first day of the month, are certain to bring results. But he who is really progressive will supplement blotters with other forms of publicity; and should he find his competitors also sending out blotters, he is wise to devote his energies largely to other means.

If one has a taste for it, there is really nothing better than the issuance of a little magazine—a house organ, if you please—given over chiefly to the exploiting of those features wherein the plant of its publisher excels other plants. Needless to add, the contents should be interest-

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ing in themselves and presented in a pleasing way; well written, with an occasional serious utterance aside from its advertising paragraphs but a preponderance of fun that is of local application. Mechanically, every detail should be as near perfection as it can be brought. Mail this to the regular list, and in each of the first two or three numbers' enclose a self-addressed private post-card inviting the recipient to return it with name and address and any comment he may care to make, should he wish to receive the publication, which of course is sent entirely without charge.

We have for several months followed this plan with a booklet which bears the euphonious if not euphemistic title of The Thomas Cat. This has sixteen pages and cover, 43/4 x 61/4 inches, the pages having rubrication and wide margins. The cover, of dark, heavy stock, is in three or four printings, and is of course from typographic design save for a picture of the feline whose namesake it is, and both design and picture change with each issue. We fill the brochure with such matter as we think will interest and amuse its readers, making it almost purely local. While the real intent and purpose is to call attention to the shop and its facilities for producing best grades of printing, it is kept subservient to other features and thereby grows up a real demand for the magazine. 'Tis rather expensive, but returns its cost fourfold.

Whenever the printer adds to his equipment a series of new type, he should, especially if it be intended primarily for stationery and commercial work, print a number of samples showing just the effect of this new type when correctly displayed in a variety of forms on paper of proper shade and texture. Manufacturers are sometimes willing to furnish without charge, for the sake of the publicity so

obtained, the stock for these samples. They should be sent to all, whether customers or not, who are likely to become interested. Frequently the orders from new customers, in direct response to these specimens, will repay the cost of the type, while patrons thus gained are almost certain to remain, being those who are attracted by merit rather than low prices or other empty argument. This plan may be supplemented by sending occasionally to those in certain lines of business copies of especially satisfactory jobs and suggesting that something similar be produced for them.

But it is his own stationery that gives a printer fullest opportunity for expression of all that he has of art and originality. Here he is unhampered by those untoward circumstances of incongruous type, inharmonious ink and paper, infelicitous diction, by which copy as it comes from customers is ofttimes trammelled. Nor is he limited as to time or expense. Yet, now as ever, directness and simplicity will produce far more satisfactory results—yes, artistic results, for art is but the beautiful way of doing thingsthan any attempt at undue elaboration, or ornate illumination, or eerie effect. Too often the latter proves merely uncouth, bizarre. Unwonted arrangement of subject-matter or a novel description of the office will add greatly to the attractiveness of stationery, as shown by Fig. 9 and Fig. 10. The former was in chocolate brown on cafe' bond; the latter on corn bond, the corporation name in red, balance of type in black, surrounded by a one-point rule border 11 x 32 picas worked in silk green, while in the center, beneath the type, was a basket ornament in steel-grey tint.

Have distinctive and striking labels for packages, which must be always neatly and carefully wrapped and tied, and plainly marked. Untidiness in this respect will go far to

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Have distinctive and striking labels for packages, which must be always neatly and carefully wrapped and tied, and plainly marked. Untidiness in this respect will go far to

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destroy the favorable opinion of an office created by correct composition and careful presswork. It is desirable, too, to adopt a certain shade for wrapping-paper—dark green is perhaps best, although blue or yellow or even red

Robert C. Mallette President

William H. Jackson Secretary

## The Jackson Print Shop General Job Printers Waterbury

Conn.

FIG. 9-PLAIN LETTER-HEAD

will be found far superior to white or manilla, and but slightly more expensive—and use it as consistently as if it were the firm's trade-mark. Use colored twine with this, rather than white.

An imprint has been called the cheapest form of advertising, and its use on every possible occasion advocated. Within bounds, this is well; but he who is really striving

THE BETTER GRADES OF PRINTING AS ARRANGED AND FINISHED BY THE JACKSON PRINT SHOP A CORPORATION IN WATERBURY CONNECTICUT OF WHICH R. C. MALLETTE IS THE PRESIDENT AND W. H. JACKSON IS THE SECRETARY

FIG. IO-THE DESIGN ELABORATED

for the finer classes of work will hardly care to place his imprint on a cheap dodger, if he still handle those jobs. Nor will he, nor should anyone, ever use it on a bill-head or other item of stationery; that is carrying it beyond all reason. But an imprint that is small, well-designed, unob-

trusive, yet perfectly legible, may well be added to such work as catalogues, booklets, programmes, folders, and the like.



FIG. I I --- AN IMPRINT

But, in the last analysis, there's nothing that will give any printshop an advertisement so thorough, so lasting, so eminently satisfactory, as a well-earned and well-maintained reputation for doing good work and delivering its orders when promised.

#### CHAPTER XVI

#### EMPLOYER AND EMPLOYEES

DEEP into the heart of the youth who is setting out on the beginnings of his long journey toward perfection in printing should be burned one thought beyond all others—loyalty! Loyalty to the office and its ideals; loyalty to those who employ him and instruct him patiently and thoroughly; loyalty to the implied as well as the expressed wishes of those in authority; loyalty to himself and his opportunities. For thus only can he become more than one who waits with heavy eyes for the moment of release from irksome tasks. How concretely this idea of loyalty is expressed by Elbert Hubbard in the Cosmopolitan!

If the concern where you are employed is all wrong, and the Old Man a curmudgeon, it may be well for you to go to the Old Man and confidentially, quietly and kindly tell him that he is a curmudgeon. Explain to him that his policy is absurd and preposterous. Then show him how to reform his ways, and you might offer to take charge of the concern and cleanse it of all its secret faults.

Do this, or if for any reason you should prefer not, then take your choice of these: Get out, or get in line. You have got to do one or the other—now make your choice.

If you work for a man, in heaven's name work for him!

If he pays you wages that supply you your bread and butter, work for him—speak well of him, think well of him, stand by him and stand by the institution he represents.

I think if I worked for a man I would work for him. I would not work for him a part of the time, and then the rest of the time work against him. I would give an undivided service or none.

If put to the pinch, an ounce of loyalty is worth a pound of cleverness. If you must vilify, condemn and eternally disparage, why, resign your position, and when you are outside, damn to your heart's content. But, I pray you, so long as you are a part of an institution, do not condemn it. Not that you will injure the institution—not that—but when you disparage the concern of which you are a part, you disparage yourself far more.

So close to each other do master and men come in an office of this description that there can scarcely fail to grow up between them, as has already been stated, a spirit of fellowship, of comity and hearty good-will, that lasts for years of mutual toil and often through longer years of separation. This is greatly to be desired; more, it is necessary if employer and employees are to work together in harmony for the best interests of each. And so firmly allied are these interests that the workman who is disloyal to his employer is disloyal to himself, the employer who fails to instruct and develop his men and bring out the best that is in them is suffering loss equal to theirs, or greater.

In no way can this be shown better than by the conduct of the men during the absence of the foreman. He who is loyal will do his accustomed tasks as steadily, as quietly, as thoroughly as if the eyes of authority were upon him; he who is disloyal, though perhaps almost unconsciously so, will work but little, and that indifferently, or cease altogether.

What is needed—nay, is urgently demanded—is the man or boy who will do his work well and carefully, asking information whenever he requires it to give better understanding of the job in hand, but using his brains as nimbly as his fingers; constantly fulfilling his tasks as well as he can; never idling. One thing completed, he will not "kill time" until the foreman calls him for another, but

will in the spirit if not the actual words of some of our men say "And what is next?" Such a one will be as faithful in the delivery of that which he has sold to his employer—his time, his skill, his knowledge—as in accurate weighing or measuring of merchandise were he a grocer or a draper; shortcomings in the one case being as reprehensible as short values in the other.

Of course the prime requisite in the making of such a workman is character. Without that none can rightly succeed, in this or any other calling. But much depends also upon the training and environment of the apprentice. In a small office it is scarcely possible to do otherwise than have a boy for errands and general office work, whose time when not thus employed is spent in learning the rudiments of the trade. In very many offices he is taught little; he is simply allowed to pick up what he can, with slight attempt to arrange or classify the scraps of knowledge as they come to him, without an understanding of the reasons for anything. Now, any apprentice who manifests interest and aptitude should be placed directly in charge of a competent journeyman, compositor or pressman, and given from day to day sound and careful instruction in the ways of doing work, and the reason. He should be advanced as rapidly as possible, making sure always that one proposition is thoroughly understood and capable of demonstration before proceeding to another. In this office the task of instruction would fall to the foreman or the pressman. It is not easy. It requires infinite patience and imposes constant interruption of tasks that may demand pressing attention; but the wise foreman will never neglect his apprentice. His endeavor will be to so train the lad that he can do his own work, subject only to wise direction and criticism. Not to lay out and plan details, but merely to indicate in general what is desired, leaving the working out thereof to the learner. At first this will be difficult and will require unceasing supervision and correction; and if the lad should fail to make progress after some weeks of such instruction, it would be well for him and well for the craft were he dismissed with advice to seek employment in some trade for which he is better fitted.

Seek to develop each man's individuality, especially in the matter of designing and composition, and in color work. Reasonable conformity with the style or rules of the office is necessary, but beyond this do not insist that all work must be given a certain treatment. Each job, or possibly group of jobs, should be handled as if there were then nothing else in the world, and such display given as will best signify the purpose of the work and the use to

which it will be put.

Of necessity, there is greater sense of comradeship, of equality, in a small office than in a larger one, and this is likely to foster a feeling of loyalty. Hence, appreciation of work well done and criticism of what is not so good should be made with this fact in mind. Dispense judicious praise when it is deserved, more freely than blame when that is deserved. But do not praise or blame indiscriminately. Enlarge upon that which is more than ordinarily excellent, point out that which is below the standard; so shall you obtain more of the former and less of the latter. Make your men feel that you have confidence in them; that you rely upon their honor and integrity; that you expect them to work faithfully and well, but will exact from them no more than you yourself are willing to give and do. Depend upon it, if they prove the right sort of

men they will respond in kind, and the work of the office will go smoothly and well. Listen to their suggestions—their ideas may often be of great value. Give them free access to your library of trade journals and printers' books; call their attention to articles of interest or usefulness; consult with them sometimes on matters pertaining to the welfare of the office, but never allow dictation from them.

Thus can you create in them a livelier sense of mutual responsibility for the maintenance and upbuilding of the business, and better fit them for their own part in it, here or elsewhere. For a willing and cheerful disposition, and the spirit of loyalty already commended, will go far to counteract minor faults in man or boy.

#### CHAPTER XVII

#### SMALL ECONOMIES AND TIME-SAVERS

THESE are small only by comparison and because they appertain to matters usually neglected and considered of small moment, or have to do with details that are often overlooked. Assuredly, a saving of fifty per cent. is worth while, and at least so much can be made in many ways by the exercise of care and forethought in providing means of working rapidly and effectively. Much time can be saved by throwing out that cigarbox full of tangled skeins and knots of strings. In its stead fasten to the ceiling, over the stone or makeup bank, or each if they be widely separated, a holder and cone of page-cord, its loose end within reach of stoneman and compositor or makeup. Each job is tied, both before and after printing, with fresh cord from this cone, and strings removed from pages or jobs are tossed at once into the waste-basket. There is then no danger that a page will pi when knotted string is unwound—though the use of pieced page-cord can never be justified. Besides, life is far too fleeting to pay a man fifteen dollars a week for winding and unwinding bits of twine that cost originally about forty cents a mile.

Instead of laying down a few sheets of manilla and tearing from them as occasion demands a ragged wrapper, buy your special shade of paper in rolls and keep two or three widths in cutters such as druggists and grocers use. These should be fastened to the table where wrapping is done. Have cones of cotton and balls of twine beside the cutters, and gummed labels and tags also. Instruct the boy to seal in ream packages all stationery not padded, and label each package.

Mention has already been made of the importance of keeping at hand a plentiful supply of tympan sheets and proof-paper in all sizes. Cut quantities of manilla or telegraph-blank paper for pencil use in the office and for those who visit it. This should be not larger than 6 x 9 inches and may be padded without backs, one or more pads being kept on each desk and table.

Don't try to save all the scrap stock, especially if from cheap grades. Nothing less than three inches in width will pay for storage, and then only if from cardboard, folio or bond; all smaller trim should go at once into the waste. And don't try to retain any cuttings unless they can be found and identified instantly; for time spent in searching aimlessly will cost far more than to have cut the job from full sheets. We whip a bit of twine around each end of a pile of trim and store it, each quality by itself, on shelves of a closet used for no other purpose. Each package is also marked to show name and weight of stock, size of slip, and number. Thus,

signifies that here are 150 pieces of 20-pound Paragon Linen 7 x 17 inches. To do this requires but a moment of the stockman's time, yet saves many minutes when the stock is wanted.

Further, having a job whereon stock from the scrapcloset can be used advantageously, do not be so foolish as to give the customer all the benefit of that fact. You should ascertain the number of full sheets required, and charge him with their cost. To do otherwise were to deliberately sacrifice legitimate profit for no good purpose. You are entitled to that—it is one of the by-products of your establishment; and those in authority at any great manufacturing corporation will tell you that fullest utilization of all by-products is necessary that profits may be realized and dividends declared.

Akin to the collecting of a quantity of miscellaneous and useless scrap is the mania for buying "seconds" in cardboard and paper. Such stock may be offered at tempting prices, but it is very seldom a bargain. Its first cost is low, its quality almost always low also; it is apt to vary in color, texture, weight, or finish; the printer who uses it and the customer who pays for it will alike be disappointed. Or if one lot chance to be acceptable, it is very doubtful if more could be obtained to fill a duplicate order, and the customer must then be given something else, perhaps at a loss to the office of a part of the profit. Possibly the customer cannot or will not understand why he should be asked more for the job now than at first, and in a huff he betakes himself and his work elsewhere. This inability to duplicate an order at original price is another strong argument against selling scrap stock at less than the price of full sheets.

Nor should you give customers all the benefit of your labor-saving and time-saving machinery and devices. No other manufacturers do this—printers would not were they better business men. These things are the outcome of your capital, your industry, your sagacity; you, then, are the one to profit by them. You plan to run a certain job two on; you find that pressmen are busier than compos-

itors, or that by setting two more the job can be worked four on at a saving; this saving is yours, not the customer's. When duplicate electros are obtained to lessen the number of impressions on a run, they should be paid for by the customer, not the office. When jobs for two customers are worked in one form, each should pay full rates.

It would seem absurd to lay stress upon these matters, were it not that their principles are being violated day after day by printers who ought to know better, whose failure to do better is injuring the trade at large and is seriously curtailing their own dividends.

#### **ADVERTISEMENTS**

#### THE GOLDING PRESS

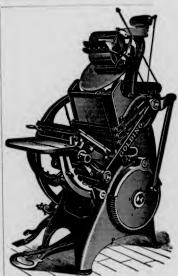
It costs considerably more money for expert labor to operate a platen printing-press for one year than the press costs when new—with the single exception of the half-super-royal size. For these reasons, any machines or class of machines which will give their operators the largest returns from a given investment in expert labor necessary.

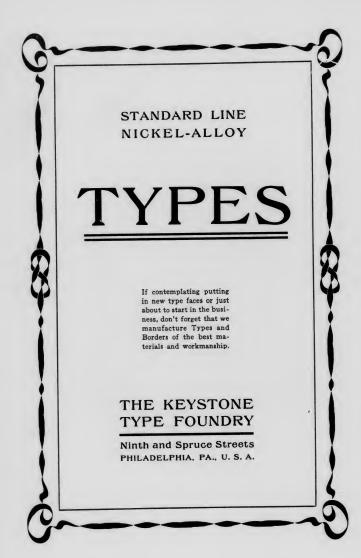
Again, the earning power of a press cannot be determined by the price asked for it by its manufacturer, but the decision should be made after the most thorough and critical investigation. In this connection it is well to remember that a guarantee concerning the speed at which the machine in question can safely be run means absolutely nothing regarding its ability to produce work at a profit. A printing-press is an intermittent machine and is standing idle one-third of the time while the work is being made ready. It must be capable of being actually fed while

running at a high rate of speed when in operation, and also contain those attachments which will materially reduce the time necessary in making the work ready. If a machine be judged on any other basis than this, it is very apt to turn out a losing investment for its owner.

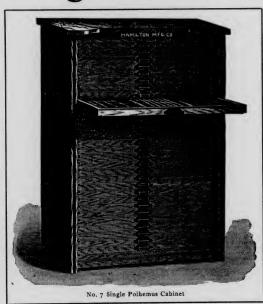
The Golding Jobbers are sold under an absolute guarantee that they will turn out a given amount of work at an actual saving in cost for labor over and above what can

be procured by the operation of any other form of platen press. Their ability to fulfill this guarantee has never been questioned by a master printer who has made an actual test. Where one Golding Jobber is sold, others are bound to follow. Write to Golding & Company's nearest store for full illustrated catalogues and a list of the users of the Golding Jobber. Ask for quotations and guarantees. Their stores are located in Boston, New York, Philadelphia and Chicago.





# PERFECTION Printing-Office Furniture



Our line of modern Printing-Office Furniture is the standard the world over. Our large new Cabinets, Stone Frames and Standing Galleys are revelations. Our complete catalogues explain it all. Sent free, on application, to all recognized printers.

## The Hamilton Manufacturing Company

Middletown, New York

Two Rivers, Wisconsin

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